

# Manufacturers Record

EXONENT OF AMERICA

Devoted to the Upbuilding of the Nation Through the Development  
of the South and Southwest as the Nation's Greatest Material Asset

Trade-Name Registered in the U. S. Patent Office

Vol. XCV No. 15 }  
Weekly. }

BALTIMORE, APRIL 11, 1929.

{ Single Copies, 20 Cents.  
\$6.50 a Year.

## Federal Reserve Policy and the Credit Situation.

HERE are no closer students of fundamental economics than Waddill Catchins and William T. Foster, director of the Pollak Foundation for Economic Research. Commenting on the credit situation, these gentlemen say:

"The basis question is whether the growth in real values actually has kept pace with the increase in the volume of call loans. Apparently it has. \* \* \* Real values unquestionably are much higher than they were a few years ago. How much higher? And how much too high are stock prices? Nobody knows. How much too low were stock prices in 1921? Nobody knows. Three years ago many people were sure prices were too high. What do they think now? Many of those who discuss those questions appear to regard stock prices and call loans as 'excessive,' merely because they are much higher than they used to be. By the same definition wages are excessive; savings are excessive; in short, the wealth of the entire country is excessive. The fact is that if anyone acts on the belief that call loans are too large and prices are too high, he acts on an opinion."

The eight gentlemen who constitute the Federal Reserve Board hold the basic prices of everything in this country, and in the world, in their hands. They have the absolute authority, under their reading of the Federal Reserve Act, to refuse to permit any rediscounting whatever. There is no question at all as to their power to deflate this country, and to deflate this country is to deflate the world. As Catchins and Foster state, these gentlemen do not *know* that security prices are too high, or the volume of loans too great, because nobody knows. They act on an opinion and that is all they can act on.

In the statement issued by the Board on April 5, it declared that it did nothing whatever, in 1928, "to offset the tightening effect of gold exports on the domestic credit situation, but, on the contrary, it increased their effect by the sale of securities." It added: "The Reserve System's policy in regard to the distribution of gold was thus subordinated during this period to the exigencies of the domestic situation, which required the restraining influence of higher money rates." The Board averred that the System's policy of contracting credit could not have been dictated by the desire to prevent gold exports, "as its gold in excess of the amount required against Federal Reserve notes and deposits was between 1.4 and 1.5 billions of dollars, early in 1928."

In other words, the Board declares that it has arbitrarily created an artificial credit stringency. It justifies this on the ground that, while it recognizes that one of its most important functions is to protect this country's gold reserves, "in existing circumstances these reserves need protection primarily against wasteful absorption into the base of an unduly expanded domestic credit structure rather than against demands from abroad." It also declares that "the objective of Federal Reserve policy, therefore, both from the point of view of domestic business, and from world trade conditions, is an adjustment in the credit system with a view to assuring

trade and industry of a continuous supply of bank credit at reasonable rates."

This whole world needs credit. There was never a time when it was more needed. Ever since the Geneva Conference it has been admitted by economists that there must be great economy in the use of gold in order that the base might be wide enough for erection of an adequate credit structure. The monetary gold of the world amounts approximately to 10 billions of dollars, of which the United States holds approximately 40 per cent. But, it holds one billion of this absolutely sterilized. The Board asserts that it will not let this billion be used as a base for domestic credit and, apparently, it will not permit it to go abroad. Thus, when the world needs this gold as seldom before it has been needed, the metal is warehoused, and not used.

Who, with authority, can say that there has been an undue inflation in this country? In the early days of the Federal Reserve System, because it was undertaking to perform such functions as check-clearance and was subjected to heavy cost of operation, earning assets were required. Therefore, the System made purchases to the extent of approximately a billion dollars, to give it earning power. That billion dollars was Reserve credit and it was absolute inflation. The leading authority on the Federal Reserve Board at the time, when asked what excuse there could be for such an inflation, answered that the country was amply strong enough to stand it. The country was strong enough to stand it and it had a wonderfully fine effect. But, if the country was then able, without danger, to absorb an inflation of a billion dollars in Reserve credit, how much can it stand now, considering the enormous growth in the nation's plant and wealth?

Mr. Butterworth, president of the Chamber of Commerce of the United States, says:

"New methods of corporation finance have reorganized the financial structure of industry. Sound practices of only a few years ago are now obsolete. The relationship between banks and other business houses, between our credit and banking system, and our investment and speculative agencies, are in a process of change. The holding company, the investment trust, the merger and consolidation of the present day have altered our concept of business finance."

So, when the Chamber holds its annual meeting later this month in Washington, it will discuss, among other things, this question: "Is there a sufficient supply of credit for the normal expansion of American business?" It is time for such a discussion. The public has supplied billions to great corporations, which now have their own funds wherewith to conduct current operations. Were these corporations borrowers from the banks, as they used to be, might not the total volume of rediscounted eligible paper be actually in excess of the loans now outstanding on stock market security? The demand for capital has been prodigious and it is not remarkable that the investing public was unable to absorb

it all completely. An amazing thing is that it has been able to absorb so much of it.

As Mr. Schwab said the other day, we are doing almost one-half the total business of the world. Our export of motor cars is increasing by leaps and bounds. We have products that the rest of the world wants, and can pay for if given time. If this is to be the true world financial capital, the reservoir from which credits are to be got, as they used to be got from England, then we must use our facilities. We cannot afford to be afraid of mere bigness, in finance or in anything else. We ought to be entirely sure that what we call speculative credits are speculative credits, because we may be in some danger of providing a cure worse than the disease.

We have no sympathy whatever with orgies, in financial markets or anywhere else. No good ever comes out of speculation run mad and those who can least afford to suffer are generally the victims. The Federal Reserve Board, considering the view it takes of speculation, has been exceedingly moderate and restrained. It hopes to bring about orderly liquidation, and nothing else. Its purpose is to bring about a situation where credit can be supplied to legitimate business on moderate terms. It wants a lower rediscount rate, not a higher one. It has declined to sanction rate increases that some of the Reserve Banks sought to make. Moreover, it has been severely handicapped because, when it might have accomplished something with comparatively little harm, its efforts were neutralized by a public statement by President Coolidge to the effect that he did not regard brokers' loans as at all alarming. This interference by the chief Executive postponed a cure.

But where will the Federal Reserve System finally arrive? If it is simply going to beat down the market until the little fellows are squeezed out, and then permit a recovery, it is simply taking money out of the pockets of the weak to put it into the pockets of the strong. And what criterion does it use to determine how much credit this country is legitimately entitled to? And how does it discover what quantity of credit the world is to have? One wonders if the time has not come when a commission of men of the first rank should be organized to study *de novo* the whole question of modern finance, in its relation to industry, in the hope that a comprehensive picture of requirements and of proper policy may be got.

This country will never countenance another major deflation. The economists may do all the arguing they please, but if any agency of this Government undertakes to do again to this country what was done in 1920, the Administration responsible for that policy will be swept out of power, as was the Democratic Party in 1920, and it will be kept out.

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#### "SWEPT NEW YORK OFF ITS FEET."

At a recent meeting of 1700 members of the American Institute of Banking in New York an address was delivered by Governor E. R. Black of the Federal Reserve Bank of Atlanta which Dr. Henry M. Payne, of the American Mining Congress, said "simply swept New York off its feet." His subject was "The Opportunity for Young Men in the South."

Governor Black has agreed to deliver this address at the meeting of the Industrial Conference of the American Mining Congress in Atlanta on April 12 at 2:30 P. M. Referring to that arrangement, Dr. Payne writes us:

"I believe the address by Governor Black will be an event to the entire South, and I hope that all Atlanta will turn out to hear it. This address alone will be worth a trip from any of the Southern states, and high school principals and upper class students might well make a trip to Atlanta to receive its inspiration."

#### COMMUNISM AT WORK IN THE CAROLINAS— A DANGER TO SOUTHERN INDUSTRY.

UNDER the surface of the workers' strikes in several Southern mills lies much more than differences over wages and working conditions. The outcome is of great importance to the entire country. These strikes—and their peculiar significance—are an affair of the people of the whole South, rather than merely of the employers and employees involved.

The sudden outbreak in Carolina cotton mills has surprised and puzzled the public. What is back of these strikes? Contradictory statements come from various sources. Some lay the blame on recently adopted efficiency methods, whereby automatic machines do the same work with fewer men, while from North Carolina come statements of the strike leaders, Fred Irwin Beal, of the National Textile Workers' Union, and George Pershing, representing the Daily Worker, official organ of the Communist Party. Pershing is quoted as saying:

"This is the beginning of a gigantic movement in the South and I was sent here because conditions were ripe. This campaign of organization will be among all workers in the South who have suffered most from lack of organization and who have been exploited by the mill owners and manufacturers.

"I am here with the aim of organizing the Young Workers' League, the youths' organization of the Communist party. The league intends to organize branches in every Southern city to educate young folks so they can improve working conditions. Right now we have members in Charlotte, Wilmington and Greenville.

"The principal view of the Communist is control of the country by workers. We do not demand that uneducated labor be given control and for this reason our organization conducts schools. This Loray Mill and every other mill under Communists would be operated by a general committee made of one representative worker from each department, and they would elect a manager who would be responsible to the general committee."

That communism really is at the bottom of the present labor trouble, there can be little question in any informed mind. Behind the agitation may be seen the shadow of the National Textile Workers Union, the secretary-treasurer of which is reputed to have been the leader at the disastrous strikes in Passaic, N. J. The names of other agitators now on the ground or behind the scenes also have been closely connected with the world-wide communist movement. In a statement of the Workers (Communist) Party adopted in New York in March appeared the following paragraph:

"Comrades, our work among the fur workers, garment workers, among the miners and textile workers, is a good start, a good beginning, but a very feeble beginning."

Another paragraph of importance to the South is the following:

"The convention must welcome the attention which the congress gave to the negro problem, particularly to bringing sharply to our attention the powerful revolutionary forces of doubly oppressed millions of negro masses in the United States. It brought forth, also, a slogan of vital importance for the liberation of the negro peoples of the United States, the slogan of self-determination for the negro people of the South and combatted the prevalence of white chauvinism as well as drew attention to the development of an industrial political army, the negro people capable of assuming the leading role among the peoples."

In an article, "The Call of the South; Labor's Next Task," in the Labor Age, August, 1928, A. J. Muste said in part:

"Those who have been working the South recently all contend that the Southern situation must be tackled soon and on an adequate scale. \* \* \* The textile industry in that section, for example, is becoming ever larger and more powerful. It is as yet unorganized. It is, however, no longer the only industry in that section of the country. Coal, steel, furniture, public utilities, railroads and other great industries are springing up. These industries are also, in the South at

least, unorganized. If this condition continues much longer, we shall have a non-union, trustified industrial South. If this enemy is not conquered and put under control while he is young and has not yet reached his full strength, it is useless to expect that anything can be done with him later. \*\*\* There must be a new attitude toward unionism, a new rebelliousness and courage developed in the Southern working class as a whole.

"How may such preparatory work be accomplished at relatively little cost? There are agencies, such as the National Women's Trade Union League, which will help. There are likewise a good many outside friendly organizations, such as the Industrial Department of the Y. M. C. A., the League of Women Voters, certain groups of newspaper editors, college teachers, clergymen, etc., who are willing to aid in such work."

On the other hand, W. E. King of the Building Trades Council, Asheville, N. C., writes to the MANUFACTURERS RECORD concerning the strike in the rayon plants in Tennessee:

"I have just read your editorial in the MANUFACTURERS RECORD relating to the strike of the textile operatives at Elizabethton, Tenn. I am at a loss to know how or where you obtained the information, or rather the misinformation, on which you base such an argument.

"As a matter of fact, the operatives went on strike before there was any organization there. They would still be out and would walk out now were it not that these organizers advise them to work on and all join the organization and let the organization negotiate an increase in pay.

"If you will go down there or send a representative and obtain the facts as to wages paid, and explain with facts how it is possible for them to live at all, you will have done humanity one of the greatest favors of the age. If you can't do that, then as a gentleman you owe those operatives and the organizers of the United Textile Workers of America an apology.

"Have you a daughter? I hope you have. Would you be willing for her to work 8 to 10 hours per day for \$8 to \$10 per week? Do you think she could possibly feed herself, clothe herself decently, pay carefare to and from work and have any money for incidentals on such a wage?

"If not, then in the name of God don't condemn the only organization on earth that is making any effort to better their condition. Lambast the churches for not taking any interest in such conditions. Wake them up to a sense of their duty and humanity can never repay you, for you will, in large measure, eliminate suffering, immorality and crime."

The fact remains that communism and "organization" have determined to enslave the American labor of the South. While wage and working conditions may in some measure have caused friction between the textile companies and the operatives, there can be no question that discontent has been stimulated by professional communistic and well paid labor agitators.

In the migration of industries from other sections to the South, and in the establishment of new industries in the South by outside or local capital, Southern labor has been one of the strongest assets. Here is good white American stock; sound in body and mind and Americanism; intelligent and industrious; free and independent in spirit, and filled with ambition for better things. Such a labor supply would prove almost irresistible to industry, even if not accompanied by the great natural advantages of the South in raw materials, water and fuel power, transportation and climate. Outstanding, however, have been the freedom and independence of the workers, who up to this time have resisted the advances of labor agitators.

Under a spirit of mutual regard and co-operation, it might seem that differences over wages and working conditions might readily have been adjusted. And probably they would have been had not communist and labor agitators seized the opportunity to foment trouble.

In their Americanism and independence, the Southern workers long remained immune to the poison spread among them. The finest antidote would have been even more liberal

pay and treatment by the industrial employers. Instead, however, it appears, wages have been tightened, despite cash increases in the pay envelope. And apparently communism has gained some circulation, and the industrial health of the South is threatened.

Both sides owe it to themselves and, above all, to the South and all the Nation, to banish and debar outside agitators. The Americanism and independence of the Southern workers must be kept unsullied from alienism and the industrial bondage which communism and union labor agitators would impose.

#### ADVANTAGES OF A PROTECTIVE TARIFF ON MANUFACTURED JUTE.

THE need for a tariff on jute products to protect the cotton growers of the South and the cotton manufacturers of the nation has been formally recognized by the Cotton Manufacturers Association of Georgia, and by the American Cotton Manufacturers Association. In a resolution unanimously adopted at a recent meeting of the executive board, the Georgia Association declared that it fully endorsed the effort to increase the tariff on jute and jute products, while at the Greenville meeting of the American Cotton Manufacturers Association, with over 8,000,000 spindles represented by the attendance, a similar resolution was adopted with one dissenting vote. As a matter of fact, the existing tariff on jute is a farce. Under this schedule there is no tariff on raw jute, and so low a rate on jute bagging and burlap as to be negligible.

Under the present rate it has been more profitable for the American jute manufacturers to move their machinery to India, do their spinning and weaving with pauper labor and ship the manufactured jute into this country, than to import raw jute and pay wages to American workmen. Consequently American jute mills have been dismantled and the machinery sent to India and American workers left jobless, while jute cloth continued to pour into this country in a huge and increasing tide, driving American-grown and American-manufactured cotton from some large markets. From 1894 to 1925 the imports of jute cloth from Calcutta to North America have increased from 66,426,200 to 1,107,090,340 yards, a gain of 1570 per cent. Over the same period, production of cotton goods in this country increased from 5,110,000,000 to 7,742,000,000 square yards, or by 51.4 per cent. According to the Association of Cotton Textile Merchants the 1928 production of the heavy cotton goods comparable in its uses to burlap amounted to 976,000,000 yards or 76,650,000 yards less than the 1927 imports of jute cloth.

The 1928 imports of jute cloth and bags weighed 732,522,608 pounds. Jute is not used pound for pound with cotton, one pound of cotton displacing 1.4 to 1.5 pounds of jute. The 1928 importation of jute cloth and bags, therefore, after allowing for certain uses in which cotton could not replace jute, displaced roughly 1,000,000 bales of American grown cotton in the American market.

Every cotton farmer is familiar with the fact that an excessive cotton crop breaks the price for the staple; whereas a small crop increases it. Yet cotton farmers themselves blindly oppose a tariff on jute bagging on the ground that they can buy the jute wrapper for a cotton bale for 6 or 7 cents per pound and sell it—gross weight of the bale—for 20c or 21c per pound, or whatever the price of cotton happens to be. In this fashion they make an apparent gain of \$2 or \$3 per bale, but the appearance is a delusion. They overlook two important facts. The first is that cotton is in competition with silk, rayon, wool and jute and the maximum price the cotton mills can pay is influenced by the goods they can sell, and the price at which they can sell them, in competition with those other fibres. The second is close kin to the first. The

Department of Agriculture in its Technical Bulletin No. 50, 1928, estimates that an increase of 200,000 bales in consumption would raise the price of cotton  $\frac{1}{2}$  cent per pound. On this basis, an increase of 1,000,000 bales would increase the price  $2\frac{1}{2}$  cents per pound, or \$12.50 per bale. But an increase of only \$10 per bale to the farmer means an increase of something like \$140,000,000 in the buying power of the farmers of our cotton belt. By giving more work to American cotton mills, the use of coarse cotton goods in the place of the jute goods now manufactured in India would increase also the buying power of the cotton mill labor of North and South alike.

Mr. Hoover has recognized the varied interests of different groups of farmers, and has said that relief must come, not through one single means, but by many measures, each designed to aid a particular agricultural group. Any plan so simple as a tariff on jute, that will add \$140,000,000 or even half that amount to the annual income of any one group of farmers, should be most welcome.

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#### HOW GREAT BRITAIN HANDLES ITS PROTECTIVE TARIFF.

THE free traders in this country have so long held up Great Britain as a free trade land that they will doubtless be surprised to learn from an article by W. F. Wakeman in this week's issue that Great Britain collects annually about £100,000,000 sterling or nearly \$500,000,000 in tariff duties.

Great Britain has adopted a method of valuation for tariff duties, which we believe to be entirely unlike that employed by any other country. Mr. Wakeman gives particulars that, so far as we are able to learn, is the first statement on the subject that has been published in this country. Members of Congress, and all others interested in adequate protection for the interests of the United States in the matter of the tariff, will find Mr. Wakeman's article exceptionally interesting and valuable. He stresses the importance of duties on a wide list of so-called "raw materials" now coming in free, emphasizing the extent to which we are importing cotton from other countries while our own cotton growing interests are suffering.

While tariff discussions in the past have usually been confined to the question of how much duty should be imposed, Mr. Wakeman goes into some detail on the subject of how duties are evaded, and gives facts in regard to the need, not only of adequate protection on everything which America can produce, but also points the way to a tariff which would safeguard the country against undervaluation and the swindling of the nation by such means.

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#### A NEGRO WINS A PRIZE FOR THE BEST ESSAY ABOUT SAVANNAH.

THE Charlotte, N. C., Observer, commenting on an interesting situation in Savannah has the following:

"Col. Sig. Myers, a patriotic citizen of Savannah, offered a prize of \$100 for the 'best essay' on how to improve that city and, behold, the prize was won by a paper submitted by a negro resident, Benjamin F. Hubert, president of the Georgia Industrial College, the award having been made by a committee of citizens, headed by Mayor Saussy. And the award was approved by the people of the city."

Here is an illustration of how the better class of negroes in the South are regarded by the intelligent white people of the South. Possibly the incident may not be without significance to people in other sections, who sometimes fail to get a true perspective of the relations between the races in the South.

#### THE SOUTH, THROUGH BALTIMORE, TO WELCOME FOREIGN TRADE COUNCIL.

FROM all indications, belief prevails that the meeting of the National Foreign Trade Council in Baltimore, April 17, 18 and 19, will be the largest and most important in the 16-year series of that organization. It is almost a tradition that the Council's meetings in Southern cities are of especial interest and value, those in Houston and Charleston, S. C., in recent years, having been conspicuously successful.

On behalf of the Council, Chairman James A. Farrell, president of the United States Steel Corporation, has exercised a guiding hand, and Secretary O. K. Davis and Assistant Secretary Gardner L. Harding have been personally active in arranging the program and the details. For Baltimore, the Association of Commerce, through G. H. Pouder, director of the import and export bureau, has been active in working out the plans. The next meeting will be held in the West, but for 1931 the Council in all probability will select another Southern city. The appropriateness in the selection of Baltimore is indicated by the fact that in one year the United States Steel Corporation had 900 vessels in the port of Baltimore, while Charles M. Schwab is chairman of the board of the Bethlehem Steel Corporation, which has at Baltimore the world's largest deepwater steel plant.

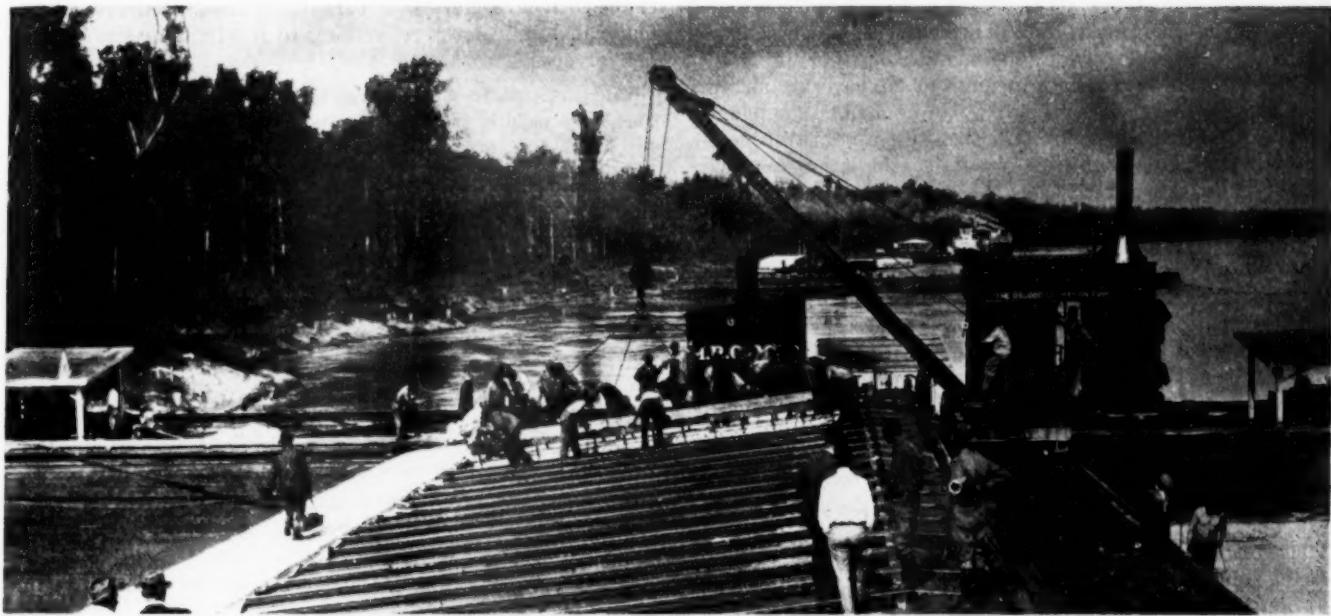
Secretary of Commerce Robert P. Lamont will make his first public address since assuming office when he speaks on April 17, on "World Trade, Today and Tomorrow." Over 2000 delegates from 35 states are expected to hear his forecast and interpretation of world trade conditions. Other prominent features of the program include addresses by two railroad presidents closely identified with foreign trade progress, Lawrence A. Downs of the Illinois Central System, who will speak on "World Trade Between the Americas," and Daniel Willard of the Baltimore & Ohio, whose address is on "The Railroads and Foreign Trade." The future of air transport for commerce will be the theme of an address at the closing session by John S. Hambleton, vice-president of the Pan-American Airways.

The foreign traders' "family party" at the Get-Together Dinner on the opening evening of the convention will have as special guests Mr. Schwab and Captain Robert Dollar. During the dinner, the International Telephone & Telegraph Company will give a demonstration of every form of world communication, including radiophone from Berlin, cables to and from the convention from Shanghai, Manila and seven other cities in South America and Europe and a general radio call to ships at sea in the Pacific. The spokesman for South America at the convention will be the Honorable Señor Don Carlos G. Davila, Chile's Ambassador in the United States, who will speak on "Pan-American Arbitration."

At the closing session, Chairman Farrell will review "Foreign Trade Progress" in a survey of the country's achievements in foreign trade during the period since the National Foreign Trade Council was founded on May 20, 1914. Mr. Farrell will observe the Council's fifteenth anniversary and his own fifteenth term of service as its chairman at a dinner at which more than 50 of the 93 members of the Council from all parts of the country plan to be present.

Other speakers include Lynn Meekins, United States Commercial Attaché at Ottawa, on "Some Special Features of Trading with Canada"; M. J. Falkenburg of Seattle, on "Progress in the Far East"; Professor Grover G. Huebner, University of Pennsylvania, on "European Practice in Credit Insurance," and E. G. Simons, vice-president of the American Foreign Credit Corporation, on "Installment Selling for Export."

The trade advisers' service will be an outstanding feature.



Concrete Mat-Sinking Plant Installing a Revetment in the Vicksburg District

The mooring barges may be seen at the left and at the right of the plant, and a workman is walking upon a mat section just launched. In the lower right hand corner is a barge loaded with mat units. The crane is fitted with a substantially constructed "pick-up" device, 4 x 25 feet, equipped with steel fingers that grasp the reinforcing steel projecting from the units; thereby, it lifts each unit and drops it into place on the skids.

## MISSISSIPPI FLOOD CONTROL.

*Elaborate Equipment Layout and Novel Construction Methods Developed for Installation of Concrete Revetments to Prevent Caving of Banks.*

Number 2.

By CARROLL E. WILLIAMS.

**I**NASMUCH as the levees within the limits of the flood control project as outlined in the first article are to be greatly enlarged they will cost much more than heretofore, and it is imperative that steps be taken to avoid the necessity for their frequent removal from the proximity of caving banks. In addition, low water navigation cannot properly be maintained until the banks are made stable; this means keeping the channel in one place and stopping bank caving, which dumps enormous quantities of earth into the river. A general bank protection scheme on a broad scale must therefore be carried out. This will consist of revetting banks by proven methods—willow and concrete mats—and also in trying new and cheaper methods to accomplish the same results. A 10-year program of channel stabilization and river regulation at a total cost of \$110,000,000 or \$11,000,000 per year is proposed. This program will more than likely need revision upward after a few years, as the rate and total amount of work above contemplated is a minimum. The progressive revetting of caving banks protects the foundation of the levees and also stabilizes the river both for flood control and navigation, so this will be followed by developing for river traffic improved navigation channels of not less than 300 feet in width and 9 feet deep, to be obtained by dredging and contraction works where necessary between Cairo and New Orleans.

The type of revetment used exclusively for many years consisted largely of concrete or riprap stone from the top of the bank down to the low water's edge and willow mats covering the subaqueous slope channelward for 250 feet. The

willow mat has quite effectively protected, and is protecting, banks from erosion. So far as the upper part of the bank and the section under water are concerned, the willow mats have, for the most part, been satisfactory, but there is a heavy cost for maintaining the inshore edge of the mats, sunk at such a stage that the mat is alternately wet and dry. The part under water will last practically indefinitely; many mats placed 30 to 40 years ago are doing effective work and inspections by divers disclose no signs of deterioration. There have been some failures in willow mats due to flanking at the ends, imperfect lap of mats, poor connections between upper bank and subaqueous work, landside drainage, lack of proper maintenance of the inner edge of the mats, etc.

Efforts to substitute concrete mats for willow mats were initiated about 32 years ago, the first step providing for concrete to replace riprap stone used to protect the upper bank. In 1914, experiments were started to develop methods for laying concrete mats on the subaqueous bank. Until 1924 the outlook was very discouraging and one method of construction after another was abandoned. The most promising was the "articulated" type, consisting of small slabs joined with reinforcing wire.

One plant after another has been built, improvements made and its operations carefully studied. Through the experience gained and the actual working tests conducted, three complete casting and mat-laying plants, each involving the expenditure with all necessary auxiliary units of about \$1,000,000, have been built and are now in operation. The articulated-mat type plant, used in the Vicksburg and New Orleans river dis-

tricts, turns out slab  $11\frac{1}{2}$  inches by 3 feet 11 inches and 3 inches thick; reinforced and connected with other slabs by wire mesh 48 inches wide, the mesh being cut in 25-foot lengths. The slabs are cast in units of 25, covering an area of 100 square feet and each unit weighing about 2500 pounds. Each unit has a border wire on either side for its full length. The units are laid side by side with a continuous  $\frac{1}{2}$ -inch wire strand cable between them at 4-foot intervals, the sections being clipped and fastened to each other and to the cable at intervals of one foot. The lapped-slab type plant, developed and used in the Memphis District, casts and lays mats 6 feet by 11 feet and 4 inches thick, each weighing about 3000 pounds with all four corners cut away; these are known as lapped-slab units, because the slabs, when placed in position on the river bed, have a 6-inch lap at the ends and sides. The slabs are heavily reinforced and have projecting loops at the corners and two pick-up loops on one edge.

**Big Investment Represented in Government Owned Mat Casting and Laying Equipment.**

The district engineer offices have the only plants for producing and installing concrete mat revetment. The first operation is to cast the slabs, the second, to grade the upper bank and to remove stumps and to generally smooth the surface, third, to lay the slabs under water, and fourth, concrete the bank and connect this paving with the subaqueous portion of the mats. A complete plant for either the articulated or lapped-slab types includes the following principal items: Two bank graders; one mat-laying plant; two mooring barges; two upper barges; 6 quarter boats; one mixing barge; 110 barges for handling sand and gravel, for cement, for fuel, and barges on which the mats are cast, cured and conveyed to the laying machine; one sand and gravel dredge; two tow boats; and an upper bank paving outfit. As indicated above, the entire layout is floating equipment. About one-fifth of the investment is in specially constructed units including the mixing plant, the laying plant, and the bank grader and paver. However, most of the equipment on these specially designed units is standard and is simply installed in special fashion to produce the desired results in combination with other equipment, thus providing a smooth-working, efficient plant. The floating plant has a high degree of mobility, its operation is not seriously affected by

changes in river levels, it permits of cheap delivery of raw materials, cuts down rehandling to a minimum and reduces delivery costs.

The articulated-mat laying plant is a specially designed unit for assembling 35 slab units of 100 square feet each and for launching into depths of up to 100 feet these heavy mat sections.

The casting plant consists, primarily, of a number of barges securely fastened end to end in a straight line and moored securely along shore. The mixing plant moves alongside the line of barges and fills the slab molds, casting about 16 layers of mats to a barge, the capacity of the barge determining how many layers may be cast. The plants are anchored within say 6 to 10 miles towing distance of the sand and gravel dredge. Consideration is also given to the location of revetting crews, the aim being to place the plant so that the loaded barges may be hauled downstream. Navigation conditions at the site must be favorable and it is desirable to have railroads and highways nearby.

Excellent progress in the design of efficiently operating units has been made on the casting plant. The newest type recently completed is operated entirely by electricity furnished by a Diesel engine generator set and this plant is turning out more than a square of articulated-slabs every minute. As fast as the slab units are made up into mat sections, they sink at once into position, supported continuously from the mat boat until the final launch is made. To hold the dead weight of the mat suspended in the water, in all the varying currents and eddies, was the problem that caused most of the troubles. Finally, an articulated-mat-sinking plant, as here described, was built. It proved satisfactory in furnishing control of the sinking operations in depths of 100 feet and over. The mat-laying boat is of steel, with a hull 170 by 54 by 9 feet. Steel skids, 4 feet on centers, with a slope of 1 vertical to 8 horizontal, extend over the edge of the barge in a circle with a radius of 8 feet. For its full length the barge is made with a rake under the ends of the skids, to permit its being pushed in close to the river bank. Ball-bearing rollers are placed alongside the skids. The skid supporting structure is substantially constructed and braced to withstand severe strains. A full-length machinery alley runs along the side of the barge opposite to the curved skids. At the machinery end of each skid are posts on which two grooved friction



Concrete Mat-Sinking Plant Built at the Vicksburg Engineer District Shops.

General view of casting operations. The barges on which the mat sections are cast are placed end to end and securely anchored in a straight line, so that the casting plant moves back and forth along the line of barges, filling the forms.



drums are mounted. Each drum has eight grooves, and passing through the grooves is a  $\frac{1}{2}$ -inch cable leading from a reel just under the skids, through direction sheaves and through the friction drums in eight figure-8 turns, thence through a sheave at the top of the skids and alongside the skids to the shore, where the cables are fastened in groups to dead-men or trees. There are 36 skids and 36 pairs of friction drums, each pair of drums being geared together by spur gears. A worm gear actuates each pair of drums, the worms being driven from countershafts. The first countershaft actuates a group of six pairs of friction drums, while each of the other shafts actuates a group of five pairs of drums. A main shaft runs the entire length of the machinery alley. A lip-spur gear from the main shaft through the proper ratio of gearing to each countershaft actuates the group operated by that countershaft which may thus be cut in or out at will. Normally, all friction drums are operated simultaneously and the entire width of mat is payed out at the rate of 5 feet a minute. Occasionally it becomes necessary to lay narrow mats, which may be accomplished by using the necessary number of friction drums. A standard gauge track runs along the side of the barge opposite the curved skids, and two locomotive cranes to lift the slabs from storage barges to the skids operate on it. The mat-laying barge has a steam capstan on each end, a domestic type electric light plant, and a locomotive type air compressor with necessary connections.

#### *Paving a River Bed to Prevent Erosion and Bank Caving a Complicated Process.*

Two mooring barges are swung out into the stream, perpendicular to the bank, and firmly secured by mooring cables fastened ashore. The mat boat must be free to move in or out as it launches the various sections of mat. The mooring barges are equipped with 6 steam hoists, each with 1200 feet of steel cable. The cables are fastened to independent mooring barges placed about 1000 feet above the lower end of the stretch to be revetted, or other suitable anchorage is provided, which permits the mat-laying plant to be readily spotted and shifted.

The first step is to clear the river bank of timber, and to hydraulically grade the slope from the top of the bank to low water. Stumps and logs are removed as far as possible. Concrete mats can be sunk at any stage from low water to bank full stage. The sinking plant is set so as to lay mat No. 1, which will be, say, 140 feet (35 slab units each about 4 feet wide) by 250 feet. The mat cables are securely fastened on shore, the plant being placed as close in as possible. The full length rake of the boat makes it possible to lay some of the mat above the water's edge. The locomotive cranes now

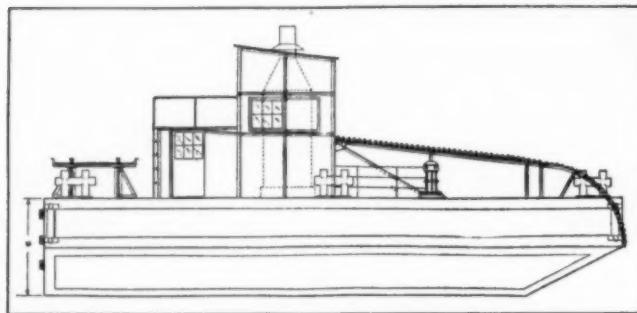
pick up from the slab barge 35 units, which are laid side by side on the skids, and are fastened to the mat cables which are 4 feet apart, and to each other by clips placed at intervals of about 5 feet; between the clips at intervals of one foot substantial wire ties are put on. There is thus formed a mat-section 140 by 25 feet, thoroughly fastened together at intervals of one foot in all directions. This section is launched until the lower edge is in the water or on shore. A similar section is made up on the skids, and is attached to the retained edge of the first section and the launching process is repeated. At the same time the mat boat is shifted out along the mooring barges so the mat will lie evenly on the bottom without piling up. These sections are made up and launched in like manner until a mat extending 140 feet along shore and 200 to 300 feet out into the stream is formed, generally reaching beyond the toe of the slope of the bank being protected; when the last section is placed, keepers are run down the guide cables to secure them at the end of the slabs, and the cables are then cut at the water's edge. The sinking plant is then pulled upstream 132 feet by the steam winches on the main mooring barges, and the mat boat is shifted in shore to a new setting for mat No. 2, allowing a lap of 8 feet on the sections first sunk. These operations continue until about 1000 linear feet of bank are covered. The upper mooring barges are then shifted about 1000 feet upstream and sinking operations continue as before. Considering a revetment of average width, it is possible to lay about 265 linear feet daily, or one mile a month. The sinking plant can place, under average conditions, about 70,000 square feet of mat daily.

The irregularity of the contour at the water's edge at various river stages prevents laying the edge of the mat continuously in the dry. Therefore, connections must be made between the submerged edge and the upper bank pavement. Sometimes it is possible to wait for the river to fall sufficiently to expose the edge of the mat, but more often a small connection-mat barge is used. The rake of this barge is such that each setting will lay the mat on a dry slope, and a sufficient number of launches are made to connect with the main mats and provide a safe overlap. Paving above the mats can be placed by laying the mat sections up the slope in the dry with a derrick. In building plants for manufacturing the mat units, progress has been made toward improved efficiency of operation and the development of more efficient machinery so that the mixing plant may be operated without delays and be so constructed as to permit continuous day and night operation.

The Vicksburg District-type of mixing and articulated-mat casting plant is built on a barge of steel, 36 by 120 feet, all the machinery of which is electrically driven, the power unit consisting of a 6-cylinder Winton Diesel engine of 225 horse-

power capacity, driving a 440-volt alternating current General Electric generator, with a heavy duty exciter. There is a 10-kilowatt Mathews gasoline engine generator for lighting and emergency purposes. An air compressor and air tank have been installed to provide for starting the Diesel engine. A fuel oil tank of 160 gallons capacity, an oil filter tank and a DeLaval centrifuge-type lubricating-oil system are part of the power plant equipment. There are two Lakewood concrete mixers of 1-cubic-yard capacity each, driven by 30 horsepower General Electric motors. At one end of the barge is an 11-ton cement hopper made by the Butler Bin Co., so located that cement may be discharged into it by a belt conveyor mounted on a cement barge. A 150-ton Butler sand and gravel hopper is situated conveniently to the concrete mixers. A 2-foot gauge tramway runs directly beneath the two hoppers. A 10-cubic-foot cement dump car and a 36-cubic-foot sand and gravel dump car operate on this tramway. They were supplied by the Atlas Car & Manufacturing Co. At opposite corners of the barge, on tracks about 40 feet long, Industrial Brownhoist 15-ton cranes with 45-foot booms operate. The cranes are each equipped with  $\frac{3}{4}$  cubic yard clamshell buckets. They are so located that sand and gravel barges moored alongside may be unloaded readily into the storage bins. Between the two cranes and located almost in the center of the barge are two single drum electric hoist units, supplied by the American Hoist & Derrick Co., equipped with solenoid brakes, and operated by 40 horsepower electric motors, and these two units move the mixing barge. Directly behind the sand and gravel hopper, and opposite the concrete mixers, is a 50 horsepower boiler, oil-fired to heat mixing water to facilitate casting when the temperature is under 32 degrees. Each concrete mixer is equipped with a Johnson Hydrographer inundation system. A 10.8-cubic-foot cement-weighing batcher is beneath the cement hopper. The concrete mixers, mounted side by side, discharge into separate 30-cubic-foot concrete hoppers.

Beneath, and directly between the two hoppers, is an I-beam 33 feet long, supported perpendicular to the length of the barge at a distance of 12 feet 9 inches from the deck of the barge, and firmly held by steel tie rods, fastened to an A-frame above the mixing units. The I-beam provides a runway for an electric trolley to which is attached a 1-cubic-yard concrete dump bucket with a seat for an operator, who directs



Sectional View of Mat-Sinking Plant.

Runway for cranes at left, skids at right. The raked edge of the barge facilitates the laying of the mats close to the water's edge.

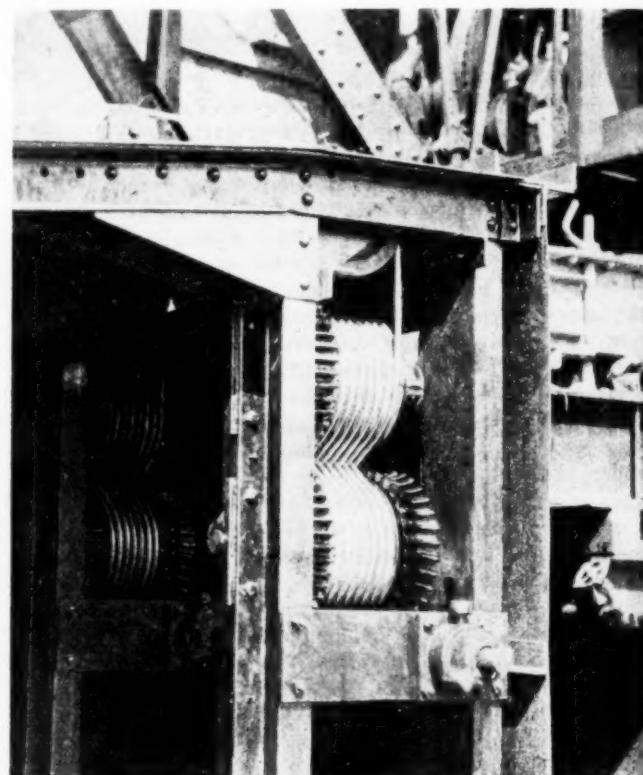
the movement of the bucket so the concrete is deposited evenly in the forms for concrete slabs laid on the material barge. The arm stretches all the way across the standard 30-foot barges, and the bucket mounted on the conveyor arm operates on the same principle as a paving mixer. Directly behind the I-beam are the engine controls for moving the mixing barge, and as soon as the operator of the bucket has distributed the batch, the barge is moved downstream 4 feet so the I-beam trolley is centered above the next form. The cement and sand and gravel dump-cars discharge into 40-foot elevating power loaders. A gravel-weighing batcher and a

No. 28 sand inundator of 17 cubic feet capacity is installed beneath the sand and gravel hopper.

Cement bags are emptied on an 18-inch permanent belt-conveyor, which discharges onto a Barber-Greene 18-inch portable belt-conveyor 45 feet long, which can be raised by a hand hoist to not over 25 degrees, and it discharges into the 11-ton cement hopper on the mixing barge. Three cement barges are required to keep the mixing plant operating at capacity, each carrying about 6000 sacks of cement. This casting plant has developed an output of 600 squares (60,000 square feet) of mat per 10-hour shift.

**New Orleans District Recently Placed New Mat Casting Plant in Operation.**

A new concrete-casting plant recently placed in operation in the New Orleans River District is designed to have a capacity of 40,000 square feet of articulated-type slabs per



Machinery Alley of Concrete Mat-Sinking Plant.

View of two of the 36 sets of friction drums used to hold the cables that tie the mat units together. The cable passes around the drums in eight figure 8 turns, a wormgear actuating each pair of drums. When the enormous dead weight of the mat units supported in water up to 150 feet deep is considered, the need for this complicated apparatus is at once apparent.

10-hour shift. It was built on a barge with a composite steel and wood frame and hull. All the equipment with the exception of the unloading crane and the aggregate bin, is completely housed in a steel frame sheathed with Robertson asbestos metal.

The machinery is located in the center of the barge with storage facilities at both ends for cement. About 200 tons, sufficient to operate the plant for 3 days on single shifts, can be stored. Cement is handled by four men loading five sacks on wooden pallets which run loose on a Mathews roller conveyor to the cement elevator, which is controlled by a push button operated by the batcher man. When the elevator reaches the top the pallet is discharged, and the elevator immediately returns to the bottom of the chute. When the laborers empty the pallet, it returns on a gravity chute to the stackers at either end of the barge. The gravity conveyors for loading the cement are on wheels, so they may be readily moved about the deck as the cement is used, thus

eliminating carrying bags to the end of the conveyor. From the loading of the cement on the pallet to the discharge of the mixed concrete into the forms on the mattress barges, all operations are independent, but are synchronized throughout a shift.

Aggregate is secured from a river bar by hydraulic dredges, the sand and gravel being obtained in almost perfect proportion for concrete. Care is taken, however, to keep the nose of the dredge always buried to prevent segregation of sand or gravel. The aggregate is loaded into bin barges, which are towed in strings to the concreting barge. The crane on the mixing barge has a fixed position, picking and swinging at a fixed radius. Therefore, the aggregate barges are moved by means of electric winches at each end of the mixer barge, these winches and cables being controlled from the crane cabin by push button. An Industrial crane, equipped with a 1 1/4-yard Blaw-Knox bucket, handles the aggregate from the barges to a 40-yard Blaw-Knox bin, which is equipped with two inundators in which cold or heated water may be used. The cooling water from the Diesel engine is now used for mixing, but plans are being considered for heating at the engine muffler. One man is designated to operate each batcher and one man to dump the cement hopper. An independent operator trips the aggregate, delivering it to a Smith 2-yard tilting mixer. The two men handling cement to the bins are required to empty about five sacks per man every two minutes.

The mixer discharges into an Insley 2-yard roller hoist bucket, which is elevated to a 3-yard receiving hopper, from which a flexible chute empties the hopper into a 1-yard Insley traveling bucket, which is manually opened by the man riding the bucket. The mattresses are poured 15 layers to a barge, the richness of the mix being increased as the top layers are cast to speed up the set. Two Flory towing winches on the outside corners of the barge operate cables attached to the end of the stream of barges, and the winches are controlled by push buttons by a man stationed near the distributing bucket who also controls the mixer and the concrete hoist, the latter of which has limit switches.

A Busch-Sulzer, 225 horsepower, air injection, 4 cycle, Diesel engine, connected to a General Electric 440 volt, alternating current, generator, furnishes power for operating the entire plant. A General Electric switchboard and voltage regulator are included. A 5-kilowatt Kohler lighting outfit furnishes light and power for an auxiliary pump when the main plant is shut down. The barge is equipped with flood-lights outside to facilitate night operations.

The operating personnel of the casting plant for single shift consists of 12 white men (overseer, foreman, Diesel engineman, etc.) and about 90 colored laborers.

Initially, wood forms coated with black oil were used in casting the mat sections. These are gradually being replaced with steel forms. The reinforcing fabric is held in place by specially designed clips. Enough forms are laid up to make a shift's run for the mixing plant, and the concrete is poured from the bottom of the bucket traveling out from the mixing barge and evenly distributing its load. The forms are lifted clear of the mats in about 5 hours from the pouring time, and a piece of 50 pound Kraft paper is placed over the green concrete. Forms are relaid on top of the paper, preparatory to the next run, which in the summer months can be made in about 5 to 6 hours, and in winter in 12 to 24 hours, depending on weather conditions.

The articulated-slab type of revetment has certain advantages over the willow type, viz., the greater speed with which it can be installed; the cost is less; it can be placed at any stage below a bank-full river, thereby giving a much longer working season; since the subaqueous covering and the upper bank paving are continuous the weak zone found in the willow revetment near the low water line is eliminated. As long as the metal reinforcement and connections last, the articulated-

type of concrete revetment will do its job properly, but there is some doubt whether the comparatively small slabs will remain permanently in place when the reinforcement and connections rust out, especially at points where eddies and strong currents prevail. The reinforcing fabric is being improved and strengthened so that its life is expected to be as durable as the concrete.

The third article of this series will discuss the lapped-slab developed in the Memphis District for revetting the banks of the river. It also will describe certain projects that have been outlined for construction.

## ACTIVITIES AT ANDALUSIA, ALA.

### \$500,000 Building Program Under Way—Inducements Offered to Small Factories.

[Special Correspondence Manufacturers Record.]

Andalusia, Ala., April 5.

Andalusia is starting on a building program which will approximate at least \$500,000. On some of the choice building lots in the city there are homes practically completed, and additional material has been delivered for the early starting of other dwellings.

Andalusia has abundant power furnished by the Andalusia Light and Power Company which has recently completed a new steam plant under construction for several months, and now extensive equipment is being installed, representing the latest machinery for a modern steam plant. Also, there will be a huge pump for fire protection with a capacity of 175 pounds of pressure, and also two smaller pumps for normal output. Added to this there will be the latest type 30 horsepower chain driven 2300-volt motor compressor made by the Ingersoll-Rand Company, which has been delivered. A like steam compressor has been included in the outfit. A 500 K V A capacity turbine steam-driven mill will generate the required amount of electricity for all demands that may be made upon them. The company has a 200,000-gallon capacity reservoir, fed by two 500-gallon capacity per minute deep well air pumps, one of the best type to be had.

The plant of Alabama Textile Products Corporation is under construction and it will have the most modern conveniences and thoroughly up-to-date equipment.

The Swift plant is being remodeled and will be the home of this new factory.

Andalusia wants small factories and inducements are offered, such as tax exemption on textile plants and tax exemption on other diversified manufactured products. They claim to have the lowest power rate which may be availed of. Sites are also guaranteed to those who are interested in locating here. The Junior Chamber of Commerce is a hustling organization and are doing all they can to encourage manufacturers to locate in this city, and it is safe to predict they will be successful.

I. S. FIELD.

## Louisiana Fruit and Vegetable Shipments.

Forty-seven out of the 64 parishes in Louisiana shipped one or more carloads of fruits and vegetables during 1928. Tangipahoa contributed the most cars to the total of 10,604 cars, the number from that parish being 2988. Other leading parishes were: La Fourche, 1025; St. Landry, 888; St. John, 661; Livingston, 620; Orleans, 588; St. James, 399; Jefferson, 346; Rapides, 335; Terrebonne, 323. The following number of cars of each commodity were shipped during the year: Strawberries, 2850; mixed vegetables, 2722; white potatoes, 1723; sweet potatoes, 979; string beans, 822; cabbage, 589; peppers, 354; oranges, 234; onions, 104; carrots, 99; cucumbers, 58; spinach, 34; watermelons, 25; cantaloupes, 4; turnips, 2; lettuce, 2; egg plant, 1; celery, 1; green peas, 1.

## San Antonio Has Its Greatest Tourist Season.

By PORTER A. WHALEY, General Manager, San Antonio Chamber of Commerce.

Winter tourist travel for the season 1928-29 has been estimated at 40,000 for San Antonio, or about 15,000 more than for any previous season. Much of this travel has come from the Middle West, and a major factor in the increase is the expenditure of more than \$100,000 to advertise San Antonio by the three principal railroads operating in the city and section—the Missouri-Kansas-Texas, the Missouri Pacific Lines and the Southern Pacific. The agents of these roads are active throughout the Middle West. Also throughout that section, the Chamber of Commerce operated tourist bureaus last year in several states, the bureaus being instrumental in interesting many tourists in San Antonio as a winter resort. Perhaps the outstanding factor, however, in this increased travel is the large number of "satisfied customers" who have returned to their respective homes after having spent the winter in San Antonio, and then told their friends and neighbors about the resort.

San Antonio was one of the first cities in the country to start national advertising to attract tourists. It has not been flamboyant publicity but it has been very effective. The city recently passed an ordinance appropriating \$125,000 per annum to advertise San Antonio as a tourist center, the campaign to begin in the early fall. Most of the money is to be spent in newspaper and periodical advertising, a publicity and advertising commission having been created to handle details.

Much is done in the city for the comfort and entertainment of tourists. The Chamber of Commerce and the Conopus Club jointly operate a fully equipped tourist club. In addition San Antonio offers a wonderful historic background. It must be remembered that civilization flourished in Mexico and the Southwestern part of the United States long before the Virginia colonists landed at Jamestown and before the Puritans arrived at Plymouth Rock, and San Antonio was an important commercial and trading center many years before the United States was organized as a Government. It was the territorial capital of the State of Coahuila during the Spanish regime, before Mexican independence was gained. The Missions around San Antonio were built by the Franciscans and their educational work with the Indians was of a high order. These Missions yet remain and they always are a delight to the tourists.

In the very heart of the business district is located the great national shrine of the Alamo. Here it was that 180 Americans perished when forced to do battle with 4000 soldiers of the Republic of Mexico. Not one survived and all Texas looks

upon the Alamo as the most sacred shrine in the state. It is preserved by a patriotic society called "The Daughters of the Republic." The state recently made an appropriation of \$1,000,000 to purchase ground surrounding it for the purpose of beautifying and preserving the Alamo for all times.

In San Antonio are the old Spanish governor's palace and other historic buildings. Fifty-five miles of the beautiful and picturesque San Antonio river wind in and out within the bounds of the business and residential districts. The city recently spent \$2,000,000 for a great dam as a protection from flood waters which occasionally form in the hills to the north, where the San Antonio river has its origin.

Development of good roads throughout south Texas; beginning of an improved highway system in Mexico; opening up of the citrus belt in the Rio Grande Valley; the building of hard surfaced highways to Corpus Christi and Aransas Pass, have added much to the attractions of San Antonio as a tourist center. Today one may drive to the hill section northwest, reaching an elevation of 1800 feet in less than two hours; in a few hours one can reach the canyon district of West Texas and another half-hour will take one into the heart of the sheep and goat region of the Southwest. In less than an hour one may arrive at the waters of the Guadalupe river through the hills and mountains of Southwest Texas and one of the most beautiful valleys anywhere. Three hours' further driving will take one to the new and growing Port of Corpus Christi, and a few miles further is Port Aransas, the second largest oil port in America. Only within the last year has this port come into prominence, due to the development of the large oil fields of West Texas, from which five pipe lines have been built to Aransas Pass. One may drive from Corpus Christi over a causeway to Padre Island, thence all the way to Brownsville over a beach almost as good as

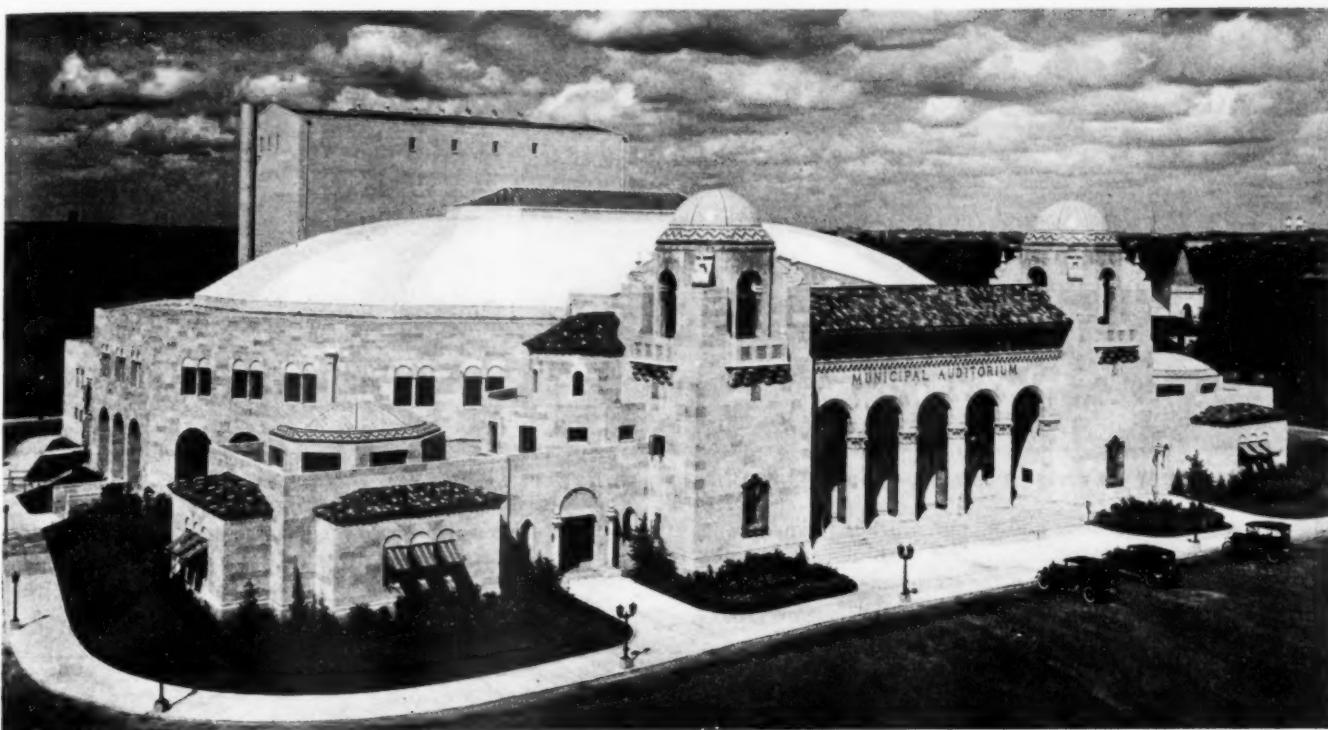
that of Daytona Beach, Fla. The old pre-Civil War port of Port Lavaca may also be reached by automobile, and not far distant is Freeport, America's great sulphur port.

The finest of fishing may be enjoyed all along the Texas coast, and occasionally even now light boats go from San Antonio to the coast by the San Antonio River, which empties into San Antonio Bay.

The citrus belt in the Rio Grande Valley may be reached in three hours, over a highway paved the entire distance, with the exception of a few miles. This belt shipped this season alone more than 4000 carloads of grapefruit. Less than two hours' drive from San Antonio is the famous Winter Garden District, where a large percentage of America's spin-



THE ALAMO, FAMED IN SONG AND STORY.



SAN ANTONIO'S \$1,500,000 AUDITORIUM HAS A SEATING CAPACITY OF 6500.

ach and Bermuda onions are grown. The region is rapidly coming into heavy production of winter vegetables; it is being colonized rapidly, about 300 families per month moving into the district, many coming from the Middle West and some from the upper South.

San Antonio was the home of the old trail drivers; and the Old Spanish Trail, which began at St. Augustine, crossing Florida via Pensacola, Mobile and New Orleans, had its headquarters at San Antonio and stage coaches were operated in the 50's between San Antonio and San Diego. Much of this old trail has been preserved in its original state. It is now paved to a great extent between San Antonio and Houston and Houston and St. Augustine. The old San Antonio Trail operated between San Antonio and the cow country of Eastern Kansas and over it thousands of Texas long horns

were driven a long distance to the market in Kansas.

Good highways lead out of San Antonio to the other principal cities of Texas and one may reach Fort Worth and Dallas in seven hours; Houston in six hours; Galveston in eight, and Austin in two and a half hours.

One hundred and fifty miles west of San Antonio, by a well-graded, but not fully-paved highway, one reaches the outer region of the Edwards plateau and the trans-Pecos oil fields. The largest oil well is located in the region of the trans-Pecos country, near the Yates Pool.

San Antonio has not allowed the tourist business, important as it is, to overshadow certain other factors in the city's growth. It is an important railroad and banking center, a headquarters for military activities, and there are approximately 600 hotels and apartment houses in the city. It has



SUNKEN GARDENS IN BRACKENRIDGE PARK.



DOWNTOWN SAN ANTONIO, SHOWING SOME OF THE GREAT HOTELS AND OFFICE BUILDINGS.

made great gains in Jobbing and manufacturing. San Antonio erected in 1926 a \$1,500,000 auditorium with a seating capacity of 6500. The city is known for its plazas and its beautiful parks, the largest being Brackenridge Park, preserved in

its natural state, and where it maintains municipal swimming pools, tennis courts, polo fields and a golf course. The famous sunken gardens in that park are known throughout the country.

### \$4,000,000 OIL REFINERY PROJECTED. Enterprise to Locate on 100-Acre Site at Fort Lauderdale.

Fort Lauderdale, Fla.—At a recent conference here participated in by members of the Broward County Port Authority, Joe H. Gill, vice-president of the Florida Power & Light Co., Miami, and Fort Lauderdale business men, C. K. McFadden, of New York, outlined plans for the construction of a \$4,000,000 oil refinery on Lake Mabel harbor. Mr. McFadden is promoting the organization of Port Everglades Refining Co. for the construction and operation of the project, which will require approximately 100 acres of land near the harbor development.

It is announced that the construction of the plant will be handled by the Fisher-Williams Corp., New York, and that engineers of this organization have investigated the possibilities of Port Everglades as a site for the plant, which would employ between 150 and 200 men. David Scholtz, Daytona Beach, president of the Florida State Chamber of Commerce, is the legal representative of Mr. McFadden in Florida.

### Electric Light and Power Plants in Florida— Generator Capacity Increased 308 Per Cent in Five Years.

Total output of electric current in Florida in 1927, as reported by the Department of Commerce, was 559,317,180 kilowatt hours, an increase of 325.7 per cent as compared with 131,390,283 kilowatt hours generated in 1922. During the same period the generator capacity increased from 71,121 kilowatts to 290,342 kilowatts, or 308.2 per cent. Marked increases are shown also for the horsepower of steam turbines, internal-combustion engines, and hydro-turbines in use as prime movers.

These figures cover both commercial and municipal plants, but do not cover those operated by mines, factories, hotels, and other enterprises not in the nature of public utilities, which consume all the current generated, nor plants operated by the Federal Government or by state institutions. No data are included for electric-railway power plants unless a part of the current generated is sold.

The 59 electric light and power establishments reported from Florida for 1927 comprised 22 commercial and 37 municipal establishments. The word "establishment" refers to

ownership or control; consequently in many cases a commercial establishment represents two or more generating stations or distribution systems.

	SUMMARY FOR THE INDUSTRY.		Per cent of increase or de- crease(—)
	1927	1922	
Number of establishments, total	59	101	-41.6
Commercial	22	45	*
Municipal	37	56	*
Number of generating stations	99	103	-3.9
Prime movers:			
Total number	241	226	6.6
Total horsepower	355,187	94,507	275.8
Steam engines—			
Number	49	128	-61.7
Horsepower	13,699	27,198	-49.6
Steam turbines—			
Number	69	31	*
Horsepower	299,266	59,135	406.1
Internal-combustion engines—			
Number	108	64	*
Horsepower	32,897	4,374	652.1
Hydro-turbines—			
Number	15	3	*
Horsepower	9,323	3,800	145.4
Generators:			
Number	248	212	17.0
Kilowatt capacity	290,342	71,121	308.2
Output of stations, kilowatt hours	559,317,180	131,390,283	325.7
Number of customers	259,966	91,849	183.0

\*Per cent not computed where base is less than 100.

### For Completion \$4,000,000 St. Louis Courts Building.

St. Louis, Mo.—The Board of Public Service receives bids until April 16 for the completion of the new \$4,000,000 civil courts building here under construction, the proposed work to cover the furnishing and installation of cabinet work and furniture, heating and ventilation, plumbing and electrical work. Plans, specifications and forms of contract may be obtained from the office of E. R. Kinsey, president of the Board of Public Service.

### Virginia Apple Blossom Festival.

Nelson F. Richards has been named director of the parade for the sixth Apple Blossom Festival at Winchester, Va., to be held in the last week in April and the first week in May. Features will include a parade of school children and school organizations of Virginia, eastern West Virginia and southern Maryland and a parade of all the organizations and industries in the Winchester district.

## Enforceable Tariff Needed.

THE NEW BRITISH LAW SUCCESSFUL; ITS OFFICIAL TEXT, PRACTICES AND ADVANTAGES—  
INCONGRUITIES OF THE AMERICAN LAW.

By WILBUR F. WAKEMAN, Former U. S. Appraiser of Merchandise, District of New York.

Number 4.

When members of the Ways and Means Committee of the House of Representatives are working and struggling to give us a simpler and more adequate protective tariff, it is proper and it is our duty to offer constructive suggestions based on the present and recent tariff laws, and administration thereof. Under the leadership of W. C. Hawley, chairman of the Ways and Means Committee of the House and Reed Smoot, Chairman of Finance in the Senate, we may hope for the best tariff in our history. Indeed, the American people will hold the members of these two committees individually and collectively responsible for a tariff system which will give every American product adequate protection.

The new tariff must have a sound foundation of dutiable value which it has not under the present law, and adequate rates of duty from the raw material to the finished product, which it has not on many products.

The tariff is like a ladder—missing rungs, weak rungs or worm-eaten rungs render the ladder unsafe and sometimes useless. A missing rung may be likened to articles on the free list commonly called and alleged to be raw materials. Thomas B. Reed, congressman from Maine, a sound Protectionist, was Speaker at the House of Representatives in 1897 when the Dingley Bill was passed. Meeting the Speaker at the old Shoreham Hotel in the spring of that year, I asked, "What is raw material?" Mr. Reed, in his quaint way, replied as he repeated the question two or three times, "Raw material is the round earth." This is a definition which should sink into the minds of every national legislator. Until we can import the "round earth" into the United States we should have a protective duty on every foreign article or product which can be or is produced at home. The first missing rung of our ladder of duties is found in cotton, copper, jute, binding twine, agricultural implements, brick, unleavened bread, cement, coal, hides, books and shoes, leather, iron ore, oils, plaster rock or gypsum, potash, shingles, woods, standard news-print paper, sulphur, etc., all of which are on the free list, all of which are produced here and all of which are subject to destructive foreign competition.

Take cotton, for instance. In the preparation of the tariff of 1897, when Chairman Dingley accepted my recommendation for reasonable duty on cotton, New England violently objected. Opponents of the duty said, "Why we import less than 50,000 bales annually and we want the Egyptian or long staple free of duty." True, that was so at that time, but what has happened since? Imports have increased from about 50,000 to nearly 400,000 bales annually, and the bulk of the foreign cotton is short staple or the ordinary commercial cotton. These importations destroy the stability in prices to our cotton grower.

Other rungs of the ladder which are weak or rotten are caused by the foreign interests, aided by their American agents and customs practitioners in deceiving our national legislatures. To illustrate: Talc, the softest mineral known, is used for making talcum powder, as filler for book paper, as crayons, etc., and is produced in many states, particularly in the middle South. North Carolina alone could produce the talc consumption of the world for a hundred years to come and not miss it. During the war period 47 mining companies sprang up and did successful business; today, we have about six producers and these are located principally along the

northern border of New York and New England. These produce only the lower grades. In addition Death Valley, California, has a talc of exceptional purity, said to be superior to that from the Pyrenees Mountains.

Yet here is what happened during consideration of the February bill: A special provision for talc was inserted in the original Bill of 1921; of crude talc one-fourth cent per pound; ground, washed, powdered or pulverized, one-half cent per pound; sawed, cut for crayons or pencils, one cent per pound, etc. But in the Senate, foreign interests persuaded the Finance Committee to change the one-half and one cent rate on the washed, pulverized and cut talc to 25 per cent ad valorem which was accepted by the House of Representatives in 1922. At that time pulverized foreign talc was valued at and quoted at \$12.00 per ton and up, but immediately the foreign price dropped, and the average price for dutiable purposes for the last few years has been \$4.60 per ton and the duty thereon \$1.15 per ton. Thus the Tariff law of 1922 resulted in crude talc being dutiable at \$5.00 a ton (none imported now) and the washed, and pulverized \$1.15 per ton. The tariff of 1922 started correctly in the House of Representatives but finally as passed put nine-tenths of the American producers out of business.

This rung in the ladder was weakness in the law; it also became worm-eaten by the foreign values established and maintained by the Board of U. S. General Appraisers, now known as the U. S. Customs Court. People little realize the importance of the talc industry with the hundreds of thousands of tons consumed annually, nearly all of which comes from foreign lands, and our own mines idle.

Again, take jute and jute products, not conflicting with previous discussion in the MANUFACTURERS RECORD. I can imagine no one but an opponent of America writing the schedules of duty in the Tariff of 1922. Jute, like cotton, should be in the dutiable schedules and from this material the compensatory rates should apply to every process advancing the merchandise in value, thus securing a well balanced schedule. Some "fine Italian hand" must have been helping the law makers of 1922, for we find jute yarns are dutiable up to seven cents per pound and the finished products bear such a very low rate that, from a commercial and competitive standpoint, they have free access to our markets.

The Underwood Tariff of 1913 was even worse than the existing law, and it was under this law of 1913 that great manufacturers of jute, the Ludlow Associates, Inc., of Massachusetts, and the American Manufacturing Co. of New York, transferred a large part of their jute plants to Calcutta where now expatriated American capital is producing on an enormous scale the materials which take the place of American made products. I remember the newspaper accounts of shiploads of jute machinery belonging to the above named companies, sailing from New York and Boston to Calcutta. To a friend, I said, "Wonder if we will ever have such a tariff as will bring this machinery back home or replace it with machinery which will stay at home." Now is the time for Congress to write a schedule of duties on jute and jute products which will be all-American and not un-American.

To return to the foundation again, namely, dutiable value of imports, which in my judgement should be the "Landing Value of Imports," as discussed in the MANUFACTURERS RECORD of March 21. I had sought for many months a com-

plete report of the effect of this policy adopted by Great Britain on July 1, 1925. The United States consular officers and influential friends failed to get it. Finally an official report prepared by a customs officer in His Majesty's service reached me and following is the exact copy:

"1. Law. Section 10 (1) of the Safeguarding of Industries Act, 1921 and Section 10 (1) of the Finance Act, 1925, provide that the value of any goods for the purpose of assessment to ad valorem duty shall be taken to be the price which an importer would give for the goods if they were delivered to him, freight and insurance paid, in bond at the port of importation, and duty shall be paid on that value as fixed by the Commissioners of Customs and Excise.

"2. Declaration on entry. Under the customs laws the importer of any goods, or his agent, must make entry of the goods in such form and manner as the commissioners direct. In the case of goods liable to an ad valorem duty the form of entry requires the importer to make a declaration of the value of the goods as defined above.

"3. Practice. The statutory value for duty quoted above has been taken for all practical purposes to be represented in normal circumstances by the bona fide invoice price charged by the foreign seller, together with freight and insurance. But the commissioners are not bound to accept any invoice as a satisfactory basis for assessment and where there is any reason to believe that the invoice does not represent a genuine sale of goods in the open market in the ordinary course of trade, as, for example, where the goods are consigned to an agent, or to an associated firm, or branch of the exporting firm, investigation is made into the condition of trading of the firms concerned. Regard is had to the circumstances of each particular case, and the invoice price by itself would not be held to represent the value for duty where there was any reason to believe

(a) that the invoice does not represent a genuine transaction in a free market; or  
 (b) that it is fraudulent.

"If (a) turns out to be the case, the invoice is rejected and the value based upon the best data available from other sources. If (b) is proved, proceedings are instituted for a penalty under the Customs Consolidation Act.

"4. Advantages of the existing method of assessing value—The principal arguments in favor of the present basis are as follows:

(a) The values given in the statistical returns of all importations of goods into the United Kingdom, both dutiable and free, are on a c. i. f. basis and it is clearly desirable to keep duty values and statistical values uniform.

(b) It is considered that ad valorem duties should as a general principle be directly related to the amount paid for the goods on which levied.

(c) The c.i.f. value is, as a general rule, easily ascertainable. The declarations of importers, supported by their invoices, can in many cases be checked by the known prices of similar goods in this country, or by comparison with the declarations of other importers of similar goods possibly from other countries. The validity of invoices can be checked by ascertaining the actual amounts remitted by the importer to the foreign exporter.

"5. Conclusion. Although it is inevitable that there should be some objections to every system the method of assessing value for the purpose of ad valorem duties adopted in this country is found to work quite satisfactorily."

The total British revenue through tariff duties is about £100,000,000 sterling. Of this sum, about £10,000,000 is by ad valorem and £90,000,000 by specific duties. It will be remembered that the law quoted above was passed in 1925 and was the first act since the abolishment of the Corn Laws in 1845, when Great Britain went on a Tariff for Revenue or Free Trade basis, leaning toward Protection of home industries. This law, "Safeguarding of Industries" was only an entering wedge, it is believed, to a complete change in the British fiscal system from Free Trade to Protection, but in enforcement by and through a sound dutiable value it is superior to the law of any other nation. The foregoing quotation or report upon the British law, its practice and effect, seems to prove conclusively that the "Landing Value of Imports" is eminently successful.

On the contrary, here in this country we have such cumber-

some laws affecting the dutiable value of imports that they are impossible of enforcement in collecting the rates of duty specified by law.

### Various Duties on Sugar Sought.

In anticipation of the enactment of tariff legislation by Congress in special session, the Sugar Bulletin, published by the American Sugar Cane League of the United States, New Orleans, explains some of the duties urged by various interests.

The League asks for 2.4 cents on Cuban 96 test sugar and 3 cents on other 96 test foreign sugars, with a proviso that when 96 test foreign sugar may sell, c. and f., below 2.5 cents the tariff be increased by the same figure as the c. and f. price is below 2.5 cents. The League also seeks a tariff of 4 cents a gallon on edible molasses testing not above 48 per cent total sugars, with an increase of eight-tenths of a cent per gallon for each degree above 48, and a tariff of 4 cents a gallon on molasses not intended for human consumption testing not over 48, with an increase of one-twelfth of a cent for each degree of higher test up to 56.

The United States Beet Sugar Association has asked for 2.4 cents a pound on 96 test sugar from Cuba and 3 cents a pound on other foreign 96 test sugar, and for the same increase in rates on molasses as is advocated by the American Sugar Cane League.

The American Farm Bureau Federation seeks a duty of 3 cents a pound on Cuban 96 degree sugar and 3.75 cents on other foreign 96 degree sugar.

The National Grange advocates 2.4 cents a pound for Cuban sugar of 96 degrees and 3 cents a pound on other foreign sugar of 96 degrees.

More than 400 pages of briefs and testimony on the subject are in the hands of a subcommittee of the Ways and Means Committee, in charge of this subject.

### English Artificial Cotton Described.

Manchester, England, March 22.—"English Artificial Cotton," states the report of the English Artificial Cotton Production and Marketing Corporation, "is the fibre of a common weed from British Guiana, which, after nine years experimentation, has been crossed and recrossed with geni of the bast family. It can only be grown from roots. The fibre is called 'Artificial Cotton' for want of a better name, and is in no way allied to milkweed, ramie or similar plants. It has more lustre than cotton, but not so much as kapok. The length of the staple varies from 1 1/4 inches to 1 1/2 inches, while its average thickness is 13.5 microns, and its structure is similar to flax.

"It is a flat string with parallel sides, but the number of cracks and displacements are fewer than those of the flax fibre. The natural end of the fibre has a closer resemblance to that of ramie rather than that of flax, which follows that it is not sharp. On the contrary it is round. The lumen sometimes appears in the form of a narrow stripe, and sometimes entirely disappears.

"With regard to tensile strength, taking the average strength of cotton at 100 per cent, the strength of 'Artificial Cotton' varies from 160 per cent to 187 per cent. English 'Artificial Cotton' is nearly three times stronger than Sakellarides. The fibre mixes perfectly with cotton, silk, rayon and wool. It presents no difficulty whatsoever with regard to dyeing, and spins on existing machinery."

### Jackson, Miss., Sells \$675,000 Bonds.

Jackson, Miss.—Bonds in the amount of \$675,000 have been sold by this city to a syndicate composed of the National City Co., New York; Capital National Bank and the Mississippi Bond & Securities Co., both of Jackson, at a price of 100.844. Of the total, \$500,000 represent general improvement bonds and \$175,000 water works bonds.

# The Tariff and Minerals.

PROTECTION ESSENTIAL FOR AMERICAN MANGANESE AND OTHER NATURAL RESOURCES.

By ANSON G. BETTS, West Cummington, Mass.

The tariff, in the main, is American labor's paramount political interest at this time. Every vote cast in Congress against the tariff as a whole, is a vote against American labor, and in some cases a vote against a particular item is a vote against the labor employed in the production of that item. The protective tariff is a question of wages to a very great degree. Wages in the United States are seldom less than 25 cents an hour for common labor, and generally much higher. On the continent of Europe, wages in the large industrial establishments are seldom as much as 10 cents an hour for common labor. In Asia, they are supposed to be from one to two cents an hour, and are probably less than three cents an hour in Africa, for natives.

The tariff is not sufficient to entirely protect the miner and manufacturer and farmer in this country, for the reason that the rates frequently do not cover the difference between American and foreign labor costs in production. A large factor of production for American industry is American ingenuity, enterprise, resource and general ability, but the tariff assists notably. So when the American miner or manufacturer goes to Washington to ask for protection, a very substantial percentage of the protection granted goes to labor, and little, in proportion, becomes profit for the producer. Many American miners and manufacturers and other producers believe in the tariff as a good, successful, time-tried practical system suited to our times and conditions, and believe in it for themselves and for the other fellow. They have produced tariff-protected articles with high-priced labor, have had faith in the maintenance of this system, have made investments predicated on such faith and have voted for its continuance. But the protective tariff must be fair and impartial for all elements in American industry.

The materials of consumption today are mineral in very great degree, and increasingly so; therefore, the development of our minerals is equally important with that of our manufacturing industries and farming. The United States, I believe, has plenty of all necessary minerals. Of course, the United States has no 10 cents-a-day labor to search for these minerals by hand methods, and every decent American hopes that it never will have such unfortunate labor. America cannot mine minerals in international competition when it has to be done by the cheapest labor. In India, with wages at one cent an hour, it is possible to hand-pick lumps of manganese ore out of dirt. If a ton were worth only \$5, that would pay a coolie's wages for 50 days. It is not very hard to dig out and sort out a ton of manganese ore in two months' work at various manganese properties in the United States, but a tariff of \$10 a ton would not be sufficient to protect such an industry paying labor 40 times as much as competitors pay. The only salvation is tariff, plus American ingenuity, invention, methods and all that contributes to American success. And when the problem of working these deposits in the American way has been solved, much ore can come from many properties that are already catalogued in reports of State and Federal departments.

Due somewhat to the fact that manganese is a vital mineral from the standpoint of national safety, because one cannot make good, cheap, steel, in present knowledge, without manganese, a duty was placed on manganese ore and crude manganese metal, to stimulate the establishment of an American manganese industry. Many other minerals, which it would also pay the United States to encourage were not so fortunate and are waiting, for some indication of the country's interest in their welfare. The manganese tariff has now become a target for some groups, but one may hope that

Congress will maintain this growing, way-showing American mining industry, and also will encourage other minerals.

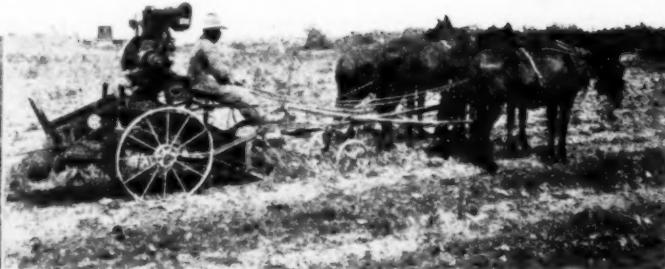
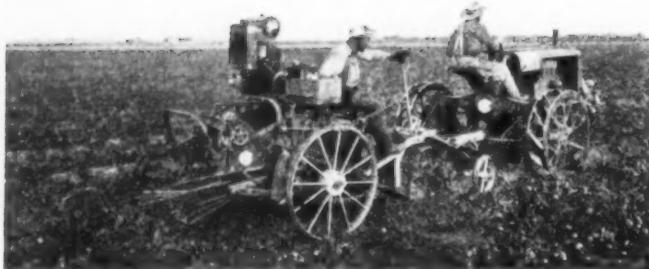
Stimulated by the tariff and with faith in its permanence, mining concerns have undertaken to produce manganese and, from a business which was next to nothing before the war, it has developed into a substantial business and is on the threshold of great achievement. From 1923 to 1928, inclusive, some 200,000 gross tons of manganese ore were classed as over 35 per cent manganese produced, which sold probably for some \$6,000,000. It is not exaggeration to say that this ore cost the manganese miners, for labor and freight, well over \$6,000,000, almost every cent of which was spent in the United States. What the manganese producers have at present is not profits, but the foundation of an industry much of the value of which will necessarily go to others in labor, taxes, freight, etc.

Manganese in the earth is a relatively abundant element, more common than lead, copper or zinc, although less of it is consumed. Also, manganese occurs in a large way in material much richer in percentage of manganese than is the case with ores of copper, lead or zinc. Material with 20 per cent of manganese is waste dirt, while 20 per cent of lead, copper or zinc constitutes rich material. For this reason, manganese users have been able to skim the cream of the manganese supplies and would not look at material much under 50 per cent manganese, and there has not been an important improvement in the processes of smelting manganese in 50 years, while advances in methods of recovery of copper, for example, have been wonderful in comparison. Manganese mining as an orderly business in the United States is relatively a few years old and it is hardly to be expected that an entirely new technology of mining and ore treatment, by American methods, should be worked out, plants built, and running at full speed so soon. But the ground is prepared for large and valuable business.

## Chain Stores Handle From 15 to 20 Per Cent of Country's Retail Trade.

The chain store is an element of revolution and evolution that is rapidly becoming characteristic of retail trade not alone in the United States, but in many other countries; this is the conclusion of a survey prepared by the Central Union Trust Company of New York. Practically every line of retail trade is now covered by such distribution and the number of stores is estimated as high as 100,000 today, with a turnover of from eight to ten billions of dollars, or from 15 to 20 per cent of total retail trade.

The survey emphasizes the speeding up of the new force "that is making for radical change in methods of distribution, is crowding out of the picture commercial factors of age-old sanction, bringing the manufacturer face to face with an entirely new line-up in his sales work, presenting competitive situations of extreme novelty and significance, revamping distribution methods and practices, potently affecting advertising, introducing new and disturbing elements into the manufacturing field itself, establishing practices in rebates and allowances as well as in merchandise appeal, creating a great current of opposition from many rural banks, independent retailers and manufacturers, and, finally, is maturing a competitive war among chain elements themselves, that in the form of interchain competition is destined to modify profoundly the directional and structural factors involved in this most important trade movement of the twentieth century."



NEAR BROWNSVILLE, TEXAS—TRACTOR DRAWN AND HORSE DRAWN MECHANICAL POTATO DIGGERS.

## Machinery in Southern Fields Stimulates the Agricultural Industry.

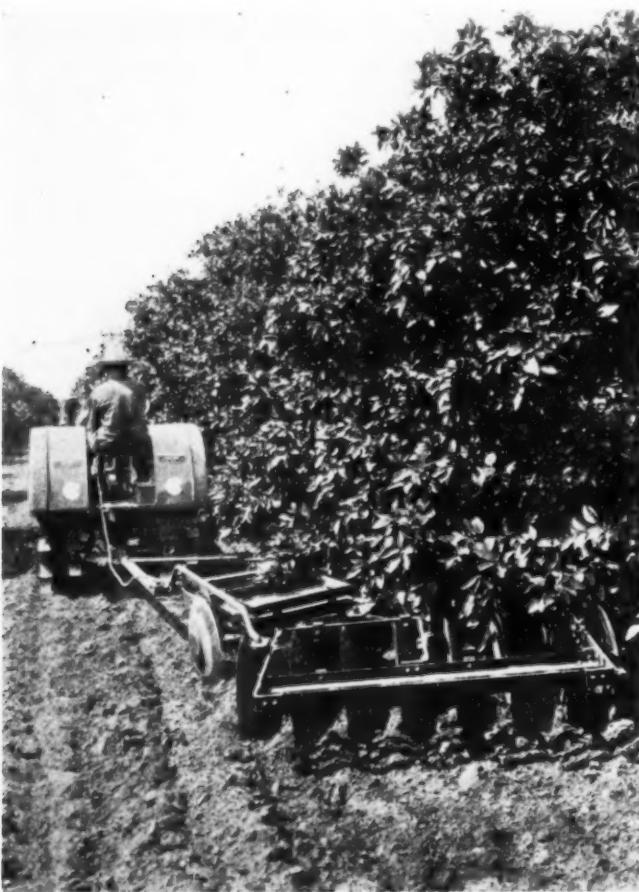
In all the tremendous development of the South and in each of the many individual phases of that development, nothing has played a more productive part than the introduction of modern equipment. In finance and commerce, in trade and manufacturing, business methods have been great contributors to success. Now agriculture is falling into line with full appreciation of the benefits of labor saving equipment, utilizing machinery in the fields in ever greater measure. Where once the farmer and his help toiled from sun-up until after dark the tractor and other farm implements lighten the burden of their labor. Mechanical potato diggers harvest the crop with traditional "neatness and dispatch"; mowers handle the soybean and alfalfa crops, as well as the

hay; busters and ditchers and diggers supplant human labor in the fields—literally a thousand and one processes are accomplished better by machine than by hand.

In the course of its business in the South, the International Harvester Company of America has gathered much interesting information and finds, for instance, that with machinery a grower in the Mississippi Delta can perform all the work up to laying by his cotton at a cost of \$7.50 an acre, in contrast with the cost of \$15 to \$18 an acre without machinery. Results of equal profit in many other lines of agriculture also are shown by the Texas Agricultural Experiment Station, and farm machinery now is of the same importance as the latest and most modern machinery is in the manufacturing plants.

Tractors are proving effective as time and labor savers in the intensive cultivation of citrus orchards and special equipment has been designed for use with tractors, which is heavy and strong enough to enable operators to work the soil at proper depths. In the lower Rio Grande Valley, about 60,000 acres are now planted to citrus orchards, with 5,000,000 trees, 82 per cent of which are grapefruit, and by 1932 it is estimated that production will be from 20,000 to 25,000 carloads. There, John Niles of Mercedes, Texas, does practically all the work in his orchard with power provided by a narrow-tread McCormick-Deering 10-20 tractor, equipped with disk wheels, which he operates himself. The tractor is used to operate an off-set disk harrow, an orchard cultivator which may be equipped with subsoil attachment, also irrigation shovels, and a spring-tooth harrow, while also he owns a new six-speed International Harvester truck, with which he delivers his fruit to market and hauls supplies to his place. After each watering, he goes into his orchard with the spring-tooth harrow, in order to provide a mulch, the harrow being fitted with quack-grass teeth, which pull out any grasses present. The orchard cultivator works down the center of the rows and the off-set disk harrow is used for killing weeds, and also to disk under a cover crop of cowpeas which is planted in September and disked under about December 1.

Embracing an area of some 6000 square miles, the Yazoo-Mississippi Delta is one of the richest farming sections in the country, cotton being the big money-paying crop and yielding as high as two and one-half bales an acre on some plantations. Alfalfa, soybeans, corn and other feed crops are also being grown in increasing acreages. And to this section a single shipment of 50 cars loaded with 300 Farmalls recently was sent. In disking and bedding the land and planting and cultivating two and four rows at a time, the man who operates with machinery in the Delta has the jump on the man who operates with mules. With a two-row middle buster, he can bed his land at the rate of 20 acres in a



THIS TRACTOR IS PULLING AN OFF-SET DISK HARROW IN A GRAPEFRUIT ORCHARD AT MERCEDES, TEXAS.



A FOUR-ROW CHECK-ROW PLANTER ON THE 4000-ACRE STONE & FORT PLANTATION NEAR GREENVILLE, MISS. PLANTING 46 ACRES IN A 10-HOUR DAY.

10-hour day, or at least three times as much as a man can do with four mules working one row at a time, while with a four-row planter he can plant six times as much as six men can with six one-row planters. Also, in harvesting the big soybean and alfalfa crops, which are being increasingly grown in the Delta, a special seven-foot mower attachment is operated by power taken directly from the tractor engine by a power take-off device, thus providing smoother and more positive cutting action. Traveling at four miles per hour, 33 acres of hay can be cut in a 10-hour day with this outfit and, with a seven-foot trailer mower hitched behind, one man can cut as high as 60 acres in a day, in comparison with 10 acres that a man can cover in a day with two mules and a five-foot mower.

For potato harvesting, mechanical potato diggers are being increasingly utilized, and in regions of hard ground the diggers equipped with auxiliary engines provide very thorough agitation and separate all potatoes from the soil, growers thus being able to save as high as 10 per cent which are lost when inefficient tools are utilized. On one farm, in Texas, 53 acres was in potatoes and the rest in tomatoes, beans and other truck crops, two and three of which are grown on the same land each year, and the owner planned to plant cotton on the 53 acres immediately after the potatoes were harvested.

Cotton growers in the Corpus Christi region of south Texas are becoming famous as four-row farmers and a large percentage plant their cotton and other row crops with four-row Farmall planters and cultivate with four-row cultivators, and it is reported to be nothing unusual in that section for one man to have 1000 acres or more in cotton and to plant it in rows one-half to one mile in length. Through the use of machinery, some growers claim they can produce cotton for as low as eight and nine cents a pound, and Bulletin No. 362, "Large Scale Cotton Production in Texas," published by the Texas Agricultural Experiment Station, says that in the Corpus Christi area "the introduction of tractor power, together with four-row outfits for planting and cultivating, enables one man to handle 200 acres or more of cotton," which may be compared with 15 to 20 acres handled by the average negro family on a share-crop basis in some cotton-growing sections. The bulletin adds that, on the tractor farm, the tractor works 66.2 days of 10 hours each and 71.8 days of 10 hours each of man labor are required to do the work of stalk cutting, bedding, harrowing, planting, cultivating, and poisoning, while on the horse farm, with two four-horse-teams and two men, 169.4 days of man labor are required and 647.8 days of horse labor.

"These large-scale, low-cost methods are destined to affect very decidedly the economic welfare of the cotton industry and particularly in those areas where such methods are applicable," says the bulletin. "Throughout its history, cotton, has been characterized and handicapped by an unusually high labor requirement. These new developments in a greater application of power and machinery should do much to remedy the situation. In short, they mean a more efficient utilization of both labor and land. They mean a greater volume of production per man and consequently a better



BEDDING COTTON LAND AT RATE OF 20 ACRES IN A 10-HOUR DAY.

Operating a 2-row middle buster on 5400-acre O. F. Bledsoe plantation, near Greenwood, Miss.

chance of a larger net income. Thus, the purchasing power, or economic status, of the individual farmer will have been materially improved. A more efficient use of land, or a greater net profit per acre, will have its direct effect on increasing the purchasing power of the area, and an indirect effect of facilitating the development of vast untilled areas, thus adding to the entire wealth of the community and the State."

In rehabilitating a great fertile farming section in the South which suffered from the flood in 1927, all-purpose

Farmall tractors in large numbers have done a splendid work. In the emergency, numerous plantation owners and operators turned to farm machinery and in comparatively short time got their land in condition, with minimum labor and greatly decreased costs. In one case, it is related, a farmer operating a 4200-acre plantation, 3600 acres of which are in cultivation, now is making use of six Farmalls and two three-plow tractors, having bought his first such machine three years ago. Two tractors were in water for six weeks, but with a small outlay for repairs, mainly for rebuilding the magnetos, they were quickly put in service again after the water receded—and after the flood he bought four more Farmalls.



MACHINE OPERATING A SPECIAL WOOD-SAWING OUTFIT ON A 2600-ACRE FARM NEAR GREENWOOD, MISS.

are a four-row check-row planter, with which, it is figured, one man can cover 40 to 46 acres a day and thus can replace three men and six mules operating a two-row outfit, and a four-row cultivator, which covers 55 to 65 acres a day and replaces seven to eight men and 14 to 16 mules operating a one-row cultivator. Also, there are two seven-foot Farmall mowers, a sweeprake, a 10-foot tractor binder, a harrow plow and a 28-46 thresher, which is operated by 15-30 tractor, all of McCormick-Deering make.

The days of excessive man-labor and mule-labor in the fields of the South are passing, and the day of machinery for efficient promotion of agriculture already is well advanced.



TWO FARMALLS IN ONE FIELD, 3 MILES LONG, WITH COTTON PLANTED IN HALF-MILE ROWS, AT CORPUS CHRISTI, TEX.

#### County and City to Vote on \$250,000 Bonds.

Waycross, Ga.—Ware County and the City of Waycross plan elections for April 30 on bond issues of \$250,000 each, the former for the construction of a county hospital to provide 100 beds for the accommodation of both charity and pay patients, and the latter for paying the floating indebtedness of the city. The elections are not linked in any way, the County Commissioners calling one and the City Commissioners the other.

#### \$600,000 School Bond Issue Voted at Monroe, La.

Monroe, La.—The city of Monroe has approved a bond issue of \$600,000 for new school buildings and a one-half mill tax for maintenance. Funds from the sale of the bonds will be used to build a high school and one or two grade schools.

#### \$250,000 Building for Teachers College.

A new building representing a cost of \$250,000, recently completed at Johnson City, Tenn., for the East Tennessee State Teachers College, will house the training school of the college, which is conducted as a laboratory school, and was designed to accommodate approximately 500 students. Plans and specifications for the building were prepared by R. H. Hunt Co., Chattanooga, and general contract was executed by Pyle Bros. of Kingsport, Tenn.

The complete group of buildings for the college, which has an enrollment of over 1500 students, includes a large main building with an auditorium, women's and men's dormitories, library, training school, gymnasium, dining room and kitchen, heating plant and president's home. The institution is one of three teachers' colleges in the state.

## Developing a Local Market for Local Farm Produce.



A few weeks ago, the **MANUFACTURERS RECORD** made reference to the establishment at Holly Hill, Fla., a small town between Ormond and Daytona Beach, of a Farmers' Market which has shown a very rapid development. The above picture gives some idea of the number that come to the market.

At first the market was held in the open, then the town of Holly Hill put up a long shed as shown in the photograph. Large stalls of about 12 feet by 12 feet are rented to the farmers at \$15 a year. Products may be sold in the open without charge, if so desired. Farmers from the surrounding country bring in almost everything that can be produced on the farms, including fresh vegetables in wide variety, eggs, chickens, fruits, berries, honey, marmalade, preserves, home-made bread, cakes and pies, and in some cases articles of home-made furniture are offered in the stalls or from the vehicles of the people.

There are many features of interest connected with the enterprise. Farmers, young and old, men and women, gather in considerable numbers three times a week. They are stimulated by competition and rivalry as to what each can produce, and present most attractive displays. Through this gathering, the farmers and their families come into personal contact with other farmers and thus create an atmosphere of friend-

ship which could not be developed to the same extent otherwise.

The creation of this market is an illustration of what could be done in hundreds of small towns throughout the South by a combination of work on the part of the town people and the farmers.

At the left of the picture is shown the shed built to protect fruits and vegetables from rain. Its construction was very inexpensive. The market is held on Tuesday, Thursday and Saturday. It presents an extremely interesting picture with hundreds of buyers flocking there on every market day to purchase direct from the country people.

There are some towns in the South in which this system could not be successfully developed, but there are hundreds where such institutions could be established, and if the local people would take an interest in buying the country produce thus presented, there would be developed a rapid growth of diversified farming. Moreover, the women would be encouraged to put up canned goods in wide variety, to bring chickens, eggs and butter and similar products if they knew the local people would patronize them freely.

In this whole idea there is presented an opportunity for broadening the diversification of Southern farm products and greatly benefiting the families of the farmers.

### Cigars, Cigarettes and Tobacco Census of Manufactures.

The Department of Commerce announces that establishments engaged primarily in the manufacture of cigars and cigarettes in 1927 reported products valued at \$965,523,702, an increase of 10.4 per cent over 1925, the last preceding census year. The production in 1927 was made up as follows: Cigars, \$335,636,159, an increase of 1.1 per cent; cigarettes, \$552,261,070, an increase of 17.7 per cent; other products, \$77,626,473, an increase of 5.6 per cent. Also, cigars and cigarettes are manufactured to some extent by establishments classified in the "Tobacco, chewing and smoking, and snuff" industry. The value of such cigars and cigarettes in 1927 was \$5,898,333. Combining this with the value of products made in the industry, gives \$893,795,562 as the total value of all cigars and cigarettes manufactured in the United States, as reported.

Of 1997 establishments reporting for 1927, 87 were in

Florida, 38 in Missouri, 26 in Maryland, 20 in Georgia, 19 in Kentucky, 15 in Louisiana, 15 in Virginia, 14 in North Carolina, 13 in West Virginia and 12 in Tennessee.

Establishments engaged primarily in the manufacture of chewing and smoking tobacco and snuff in 1927 reported such products to the value of \$192,298,013, together with miscellaneous products, \$5,946,664, making a total of \$198,244,677. The value of tobacco and snuff shows a decrease of 6.3 per cent from 1925, the last preceding census year. Chewing and smoking tobacco and snuff manufactured by establishments classified in the "Cigars and cigarettes" industry ran to \$75,361,417. Combining this amount with the value of tobacco and snuff made in the industry, gives \$267,659,430 as the total value of chewing and smoking tobacco and snuff manufactured in the United States.

Of 159 establishments reporting for 1927, 19 were in Kentucky, 10 in Tennessee, 7 in Virginia, 6 in Missouri, 6 in North Carolina, one each in Louisiana, Texas and West Virginia.

## Plant for Cotton Loom Manufacture at Spartanburg.

Marking what is described as a significant development in Southern industry, the new plant at Spartanburg, S. C., of the Standard Looms, Inc., will go into production for the complete manufacture of cotton looms and loom replacement parts. It is the first plant of its kind to be established in the South and is thought to be the actual beginning of a movement to bring textile operations in this section into closer touch with its allied industries. Organization of the company nearly a year ago with a capitalization of \$750,000, and the prior and subsequent promotion of the enterprise, requiring months of work on the part of Spartanburg civic organizations and individuals, has resulted in the establishment of a plant that is expected to employ 1000 skilled workers when in full operation.

The plant consists of a brick and steel manufacturing building, 143 by 381 feet, with monitor, housing the pattern shop, machine shop, assembly section, carpenter shop and offices. The foundry is 380 by 108 feet, of steel skeleton construction and covered with Robertson protected metal. This unit is different from the usual foundry building in that it has no monitor, but has flat skylights and is amply ventilated. It houses the cupolas, core room, pickling and snagging rooms, sand blasts and the foundry itself. These two buildings are connected by another building 60 by 108 feet, which is used for temporary storage and painting. Provision has also been made for additional warehouse space. All buildings are one story high, except the cupola end of the foundry, which has a

second floor for charging. An elevator is used for hoisting materials, while an electric 2-ton crane serves the center bay of the foundry and hand-pushed ladles on monorail tracks, the other bays. A boiler house, dry kiln and sidetracks are also a part of the project.

Engineering details were handled by the Lockwood Greene Engineers, Inc., and general contract executed by the Fiske-Carter Construction Co., both of Spartanburg. Sub-contracts were awarded as follows:

**Foundry roof and sides**—Robertson Protected Metal Co., Charlotte, N. C.  
**Grading**—R. L. Elliott, Spartanburg.  
**Plumbing**—J. G. Arnold, Spartanburg.  
**Roof for manufacturing building**—Builders Roofing Co., Spartanburg.

Contractors furnishing material:

**Brick**—Georgia-Carolina Brick Co., Augusta, Ga.  
**Lumber**—Bright-Brooks Lumber Co., Savannah, Ga.  
**Steel sash**—William Bayley Co., Springfield, Ohio.  
**Structural steel**—McClintic-Marshall Co., Pittsburgh, Pa.

Other contracts were awarded as follows:

**Boiler (150-horsepower, horizontal return tubular)**—Hedges-Walsh-Weidner Co., Chattanooga, Tenn.  
**Elevated steel tank (50,000-gallon)**—Chicago Bridge and Iron Works, Chicago, Ill.  
**Freight elevator**—Park Manufacturing Co., Charlotte.  
**Sprinklers**—Charlotte branch of Automatic Sprinkler Corp. of America, New York.  
**Steam heat**—Poe Piping and Heating Co., Greenville, S. C.

Electric light and power installations were handled by day labor.



NEW PLANT AT SPARTANBURG OF STANDARD LOOMS, INC.

### Increased Sales of Phosphate Rock in 1928— Florida Supplies 82 Per Cent of Domestic Output.

The total quantity of phosphate rock sold or used by producers in the United States in 1928 was 3,439,921 long tons, valued at \$12,339,850, states the Department of Commerce in summarizing figures compiled by the Bureau of Mines from individual reports furnished by producers. The figures for Florida were collected in co-operation with the State Geological Survey. The compilation indicates an increase of 8 per cent in quantity and 10 per cent in value, as compared with 1927.

#### PHOSPHATE ROCK SOLD OR USED BY PRODUCERS IN 1928.

		Long tons	Value
Florida:	Hard rock	92,627	\$370,508
	Land pebble	2,729,334	8,953,798
		<hr/>	<hr/>
		2,821,961	9,324,306
Idaho:	Western rock	37,477	147,908
Tennessee:	Blue and brown rock	577,095	2,853,237
Wyoming:	Western rock	3,388	14,399
		<hr/>	<hr/>
		3,439,921	\$12,339,850

Florida continued to lead in production, and was the source of 82 per cent of all phosphate rock sold or used by producers in the United States in 1928. Land pebble rock constituted 97 per cent of the Florida output and showed an increase of 9 per cent in quantity and 10 per cent in value, as compared with 1927; the average value f. o. b. mines was \$3.28 a long ton compared with \$3.24 a ton in 1927. Hard rock production decreased in both quantity and value compared with 1927; average value f. o. b. mines in 1928 was \$4 a long ton, the same as in 1927. Production of phosphate rock in Tennessee showed an increase in quantity and value, as compared with 1927, and the average value a long ton was \$4.94, compared with \$4.81 in 1927. The quantity of phosphate rock sold or used by producers in the Western states decreased 21 per cent as compared with 1927.

Imports of phosphate rock were 45,812 long tons, valued at \$431,238, an increase of 62 per cent in quantity and 47 per cent in value over 1927. Exports amounted to 898,764 long tons, valued at \$4,453,101, a decrease of 2 per cent in quantity and 6 per cent in value, compared with 1927, and included 92,517 tons of hard rock, valued at \$626,238, and 806,247 tons of land pebble and other rock, valued at \$3,826,863.

## IRON, STEEL AND METAL MARKET

### Steel Consumption Heavy—Production Remains High.

Pittsburgh, April 8—[Special.]—There is no visible prospect of any early decrease in the rate of steel production, which about the middle of March reached a stage of full engagement of capacity except for some idleness of Bessemer departments. About 95 per cent of the full productive capacity has been engaged and tonnage outputs of individual departments have tended to exceed their normal ratings. Production of steel ingots in the first quarter of this year made a new first quarter record by about 11 per cent, and also exceeded by several per cent the exceptional production in the last quarter of last year.

It is normal for the spring peak in production to be reached about the middle of March or very shortly thereafter. It has also been normal for production to start decreasing soon after the peak rate was reached, but now predictions are that there will be full production throughout this month and well into next month.

In two steel consuming lines there has been altogether exceptional activity, in the automobile and the agricultural implement trades. In no other line is there any spectacular activity. Building operations generally are off somewhat from last year, while oil and gas well drilling has been light for two years and is lighter still just now. As a matter of fact it is somewhat difficult to account fully for the steel being shipped and no doubt consumed, and the inference is that various miscellaneous lines are taking increased tonnages.

The finished steel markets were relatively quiet last week, as in bars, sheets and strips there were very heavy specifications against expiring contracts, filling the mills in these lines for more than a month with actual shipping orders. Higher prices obtain on second quarter contracts in these lines in accordance with advances announced in February.

Fabricated structural steel lettings reported last week at 84,300 tons made a new record for all time in weekly lettings, but included only one exceptional job, 22,300 tons for three sections of a subway in New York City. The average in the last five weeks was fully 60 per cent above the general weekly average of the last two years, which steel producers consider quite a commentary on the theory that loans to stock brokers have been interfering with supplies of capital for construction work.

Automobile and truck production in the United States and Canada is set by a preliminary statement of the National Automobile Chamber of Commerce at 595,000 in March, or 21 per cent over the record prior to February, 492,543 last August. Officially reported production was 422,319 for January and 497,371 for February, whereby the quarter's total is about 1,515,000. A computation based on the experience of the last five years would have forecast 1,156,000 as normal for the quarter and thus there is an excess of 31 per cent, equal to three-fifths of one month's production at the March rate. The strong pace might suggest an earlier seasonal decrease than usual, and the average date of peak production in the last five years has been about May 1, but shipping orders for automobile steel are said to represent four to six weeks of mill production, and allowing for manufacture of parts and assembly of cars this would indicate continuance of the automobile pace through the month of May. This exceptional automobile production accounts for only a small part of the gain in steel production. Of last year's total steel about 18 per cent went into automobile production. Using the available figures it appears that in the first quarter of this year 21 to 22 per cent of the steel produced went to the automobile trade, against 18 per cent last year.

Scrap for Pittsburgh district steel mills is scarcer still,

adequate deliveries being hard to get. Additional purchases have been made in the week of about 30,000 tons of heavy melting steel scrap, No. 2 scrap and hydraulic compressed, at full prices.

### Decline in Metal Prices—Consumption Heavy.

New York, April 8—[Special.]—The market tone of the metals generally is still strong though the epidemic of price advancing is over for the moment. Though there have been recessions during the week, many regard them as only temporary. Producers are warning consumers that copper will still rise another cent per pound to 25c for domestic delivery. The tenseness of the lead market is not yet over, though after prices had stabilized somewhat a distinct surprise came Thursday when the American Smelting & Refining Co. reduced prices \$5 per ton. The price of zinc ore was advanced \$1.50 per ton in the tri-State district to \$44, the highest in several years. Sooner or later that will probably cause slab zinc to be marked up again. Only tin is idle and depressed.

In fact tin seems to have exchanged places with the other non-ferrous metals as to market behavior. Tin was the highly speculative metal with violent ups and downs. Since the Anglo-Oriental group have been working upon the market, however, tin has been quite stable and it has been the other metals which have apparently got out of bounds. Thursday's drop was the exception which proves the rule of stability.

Consumption of the metals is undoubtedly the briskest ever in peace times and perhaps in war as well. The steel industry is full of spectacular developments, with operations at full capacity, with several production records made, with prices the highest in nearly two years and with no halt of the pace in sight.

Much interest will center in the metal statistics which will be coming out for March within the next ten days. The American Bureau of Metal Statistics will not have its report ready until April 12. However, unofficial estimates have already been made for copper sales in March. These totaled 110,050 tons, compared with 162,000 tons in February and 126,500 tons in January. The falling off last month was due to the scarcity of the red metal and to the reluctance of producers to sell. March sales were divided into 62,750 tons for foreign shipment and 48,300 tons for domestic shipment.

It is predicted that copper shipments in March will be shown to have been strikingly large, perhaps a new high record. Also it is probable that surplus stocks were reduced again. The Anaconda Copper Mining Company has advanced wages at Butte, Mont., by 25c per day to a total of \$6, the third advance since October 1. An official of the Utah Copper Company has just stated that costs of production for that company in 1928 were 5.6c per pound, one of the lowest costs in this country. These figures give some inkling as to the tremendous profits in copper at 24c per pound, selling price.

A little copper was offered by second hands during the week at 23½c per pound, or even 23¼c, but producers maintained that these offers were for August and September delivery, which are not yet available from the hands of producers. In other words, certain second hands have been offering the red metal short. First hand sales of copper were extremely light all week and the market may continue dull, at least until after the March statistics have been digested.

More criticism has been leveled against the copper producers for allowing prices to go so high, trade journals who formerly defended the copper producers now plainly disapproving of the market action. It is believed that before mid-summer a sharp price reaction will take place, probably sending the price down to at least 20 cents per pound.

The climax for the week came on Thursday when all the

metals dropped sharply on the London Metal Exchange, which was attributed by some to the sweeping victories of the Federal troops in Mexico and the prospects that hostilities will soon cease. That would relieve the tension about shipments of copper and lead, and to some extent zinc from that country to the United States. Copper dropped £6 10 shillings and lead came down proportionately as much. Following this spectacle the American producers reduced their lead prices \$5 per ton and the tone of the copper market became weaker, with prices made by second hands having more market significance.

On that day, too, tin fell to the lowest levels of the year, Straits tin selling but little above 48c per pound and standard tin falling below that level for the first time in the history of the National Metal Exchange, which started December 3. Buying of tin was feverish, consumers being attracted by the bargain prices and traders in standard tin being attracted by the chances for good profits during the process of market fluctuation. Sales on the local exchange Thursday were 760 tons, a new high record.

Until Thursday, zinc had firmed at 6.80c per pound, East St. Louis, following the rise of ore the previous Saturday to \$44 per ton. However, even zinc became weaker in tone. It comes to light that the zinc buying movement in late March was the largest since last October and the market will probably be quiet for many weeks.

When the New York lead price became 7.50c per pound, Middle Western producers reduced to 7.40c. Demand has been best from the cable makers, but conspicuous too among the buyers were manufacturers of ammunition, foil, batteries, pigments, etc.

### Activity in Pig Iron Production—Deliveries Improve—Structural Steel in Strong Demand.

Birmingham, Ala., April 8—[Special.]—Production of pig iron in Alabama continues active and indications point to the sale of the make through this quarter. Immediately after the announcement of a reduction of \$1 per ton in the base price of iron, down to \$15.50, No. 2 foundry, there was a little flush in the buying but this has settled down and intimation is that the melters are rather conservative, looking out for their actual needs and waiting awhile, so far as probable needs are concerned. A little business has been reported from the Ohio river territory, where competition with Ohio iron makers is possible. Furnace interests here are also in the market for either foundry or basic iron and requirements of either can be filled.

Iron production is steady and good results are noted at several blast furnaces. For instance, the Republic Iron & Steel Company at its two Thomas blast furnaces in March produced more than 26,000 tons of iron, nearly 2000 tons more than any previous month. A statement is to the effect that this company has adopted a method of skimming the iron at the pig machine, thereby eliminating scurf, slag, dirt, etc., an objectionable feature of the pig iron trade. The company has also changed the design of the pig in such manner that it will be of greater service in the average cupola. The iron produced at the Thomas furnaces is without the least scrap, being all-ore iron. The Republic company also made records in coal and coke in March, the coke output being more than 37,500 tons.

Delivery of pig iron is a little more active than during the past several weeks, cast iron pressure pipe production showing a slight improvement. The pipe trade, however, is not reported as extraordinary, large production accounting for this condition. The Birmingham district has greater capacities now in pipe than ever before. The \$37 to \$38 base, six-inch and over sizes, is being maintained. Lettings are still reported with shipments somewhat widespread, the far West receiving considerable tonnage. Centrifugal pipe has the

edge. Development in the pipe industry in the last two years and more has been along this line of endeavor.

Foundries and machine shops are reporting little change in conditions. Stove foundries are working up stock in anticipation of a good season. Development has taken place in this line also. However, the average melt of iron with the stove foundry is not very great but with numbers the tonnage amounts to considerable.

The steel market has been quite active except as to rails, wire and nails. Operations are on a 90 per cent capacity pace, estimated, with sheet, plate, structural and other shapes in strong demand. The several steel fabricating shops are well supplied with business. The Ingalls Iron Works Co., Inc., is fabricating structural steel for the Jefferson county, Ala., courthouse, 2150 tons to be required, also erecting steel frame for the new car works of the Pullman Car & Manufacturing Corporation at Bessemer, and is working on steel for two buildings for a pressed board plant at Greenville, Miss., for the Chicago Mill & Lumber Co., also 110 tons for a theater building in Colon, Republic of Panama, for the Saenger interests, while 230 tons will be used in the construction of the criminal court building at New Orleans. The Virginia Bridge & Iron Company is fabricating 250 tons of steel for a stadium for the Woodlawn high school. An addition to the Connors Steel Company plant, hoop department, is also being erected by the Virginia Bridge and 1300 tons of steel for bridges on the Louisville & Nashville and Southern Pacific railroads will be shipped from this point. Other contracts are reported in structural steel while sheet and plate contracts are quite numerous.

The coal mining trade is far from active. However, coal operators are hoping for a turn for the better in some other direction. Independent coal companies, operating by-product coke works, take encouragement in the fact that Governor Bibb Graves has expressed opposition to the coming in of the natural gas lines from the Louisiana fields, taking the position that a great industry of the state will be interfered with and with no recompense to the state or its people from the new product. The coke market is only fairly good, production being held steady. The by-product gas is being used by two of the larger utility companies of the district while many industrial plants are getting by-product gas for their power. Foundry coke is holding firmly at \$5 per ton. A little coke is still moving into the middle West, though not in very large tonnages.

Scrap iron and steel market is holding its own well, with demand fairly good in all lines. Heavy melting steel is selling at more than \$12.50 for the best quality. General mixture of heavy melting steel is being purchased by one large consumer at \$10.50 in quantity.

Quotations for pig iron and iron and steel scrap follow:

**PIG IRON.**  
No. 2 foundry, 1.75 to 2.25 per cent silicon, f. o. b. furnaces, \$15.50; No. 1 foundry, 2.25 to 2.75 per cent silicon, \$16.00; iron of 2.75 to 3.25 per cent silicon, \$16.50; iron of 3.25 to 3.75 per cent silicon, \$17.00.

#### OLD MATERIAL.

Old steel axles .....	\$17.00 to \$18.00
Old iron axles .....	17.00 to 18.00
Old steel rails .....	13.00 to 14.00
Heavy melting steel .....	10.50 to 12.50
No. 1 cast .....	14.00 to 15.00
Stove plate .....	12.50 to 13.00
No. 1 railroad wrought .....	10.00 to 11.00
Old car wheels .....	12.00 to 13.50
Old tramcar wheels .....	13.00 to 14.00
Machine shop turnings .....	8.00 to 9.00
Cast-iron borings .....	8.00 to 9.00
Cast-iron borings (chem.) .....	13.00 to 13.50

### \$1,000,000 Hotel Planned at Anniston, Ala.

Anniston, Ala.—Plans are being prepared for a \$1,000,000 400-room hotel and construction is expected to begin about May 1, according to an announcement by the Calhoun Hotel Co., organized by S. P. Acker, L. X. Liles, W. F. Johnson, C. A. Hamilton, B. I. Snellgrove and W. H. Weatherly, all of Anniston.

# AVIATION, AIRPORTS AND AIRWAYS

## Air Service for Southern Perishables.

Possibilities of transportation of fresh fruits, vegetables and other perishables by airplane from the South to points in the far North and West are under consideration on the example of airline operators in the Netherlands. Winter strawberries now are rushed by plane across the English channel from the Netherlands to London, where they are served within 12 hours after they are picked in Holland. That the airmail and express lines which link Southern states and many Southern cities with New York, Chicago and other centers have the same opportunities for building up additional express business is the view of the aeronautics branch of the Department of Commerce. In 1928, the Royal Dutch Air Lines carried more than 15,000,000 pounds of such perishable freight as fruits, vegetables and flowers, the traffic increasing more than 70 per cent over that of 1927. According to reports to the Department of Commerce, air transportation of these perishables is growing in favor with shippers because of the superior condition in which the products are delivered. Carriage charges are moderate, the Netherlands airlines charging less than five cents a pound for cut flowers and less than eight cents a pound for strawberries and grapes. Speedy service at reasonable rates is said easily to be possible for perishables from the South to the North, and this service is expected to develop to substantial proportions.

## Big Airline Company Formed.

Wichita Falls, Tex., has been placed on one of the major airline systems through purchase of the Braniff airlines, with headquarters at Oklahoma City, by the Universal Air Corporation of Chicago, E. B. Reeser, president of the Petroleum Institute of America, to be president of the new company. Twice-a-day service has been started between Tulsa and Wichita Falls, with stops at Duncan, Oklahoma City and Chickasha, while a line from Oklahoma City to Dallas is contemplated. Paul Braniff is said to have started the Braniff line, about 10 months ago, with one plane and \$35,000 of capital, and the new corporation in which his concern is included is capitalized at \$3,000,000. Lines planned by the new company call for connections with San Angelo, in the West Texas oil fields; a route to El Paso, on the Mexican border; connection with Wichita, Kan., and Kansas City, Mo.; a through line from El Paso to St. Louis, and a line from Tulsa to Seminole. Mr. Braniff is active vice-president and general manager of the new corporation. Hangars are to be erected at Oklahoma City and Tulsa for tri-motored planes, and the company plans to have about 30 six-passenger and eight-passenger planes in service by the middle of summer.

## Quick Trips on Southern Airways.

Within the space of 37 hours and 35 minutes, Captain Ross G. Hoyt, Air Corps, recently accomplished a double down-to-dusk flight from Washington, D. C., to Kelly Field, San Antonio, Texas, and return, the distance involved approximating 3100 miles. Allowing for the period of rest at Kelly Field of nine hours, and the 15 to 20-minute periods taken up during the refueling of the plane at the several places he landed while en route, Captain Hoyt's actual flying time totaled 25½ hours.

Captain Hoyt encountered clear weather throughout, but was forced to battle strong head winds on his return journey after leaving Greenville, S. C., as he got into the North.

The plane took the air at Bolling Field at 4.25 A. M., and Captain Hoyt flew along the course of the airmail beacons which are strung along at 40-mile intervals between New

York and Atlanta. Arriving at the Municipal Airport at Greenville, S. C., at 7.50 A. M., his plane was serviced with 70 gallons of gasoline and one gallon of oil. Fifteen minutes later he took off for Jackson, Miss., passing over Birmingham en route. Reaching Jackson at 1.10 P. M., Eastern Standard time, the little pursuit ship was serviced with 100 gallons of gasoline and a gallon of oil. Twenty minutes later it was in the air again en route to Shreveport, La., where its wheels touched at 2.45 P. M. San Antonio was reached at 6.45 P. M., Central time, just 15 minutes before darkness.

At Kelly Field the motor was stopped for the first time since leaving Washington. The airplane and motor were given a routine check and Captain Hoyt left instructions to have it ready for flight at 3.30 the next morning.

## Dallas Headquarters for Aeronautics Concern.

Trend of the aeronautics industry toward the South may be noted in an announcement by the Fairchild Aviation Corporation, subsidiary of the Fairchild Airplane Manufacturing Corporation, Farmingdale, N. Y., that it has selected Dallas, Tex., as its headquarters to serve the Southwest with products of the Fairchild companies. The Dallas office will serve as a regional branch to distribute Fairchild products, such as airplanes, surveys, engines and cameras, throughout Texas, Oklahoma, Arkansas, Louisiana and New Mexico. In a note to the MANUFACTURERS RECORD, Stuart Moir, southwestern manager, says: "The opening of this branch is evidence of the confidence which the Fairchild Aviation Corporation has in the development of aviation throughout the Southwest. The Dallas office will serve as a direct factory representation to Fairchild dealers. Headquarters for flying operations will be at hangar No. 5, Love field, and the office headquarters at 2102 North Harwood street."

## Aeronautics in West Texas Today.

Aeronautics is made the outstanding subject in the March issue of West Texas Today, official publication of the West Texas Chamber of Commerce, with headquarters at Stamford. The future of aviation in Texas is discussed by A. P. Barrett, president of Texas Air Transport, Inc., and Southern Air Transport, Inc., who sees every prospect of Texas becoming "pre-eminent in the development of aviation." Other articles include an account of the recent opening of San Angelo's new airport, also a reference to the plan for a municipal airport at Amarillo, and the development at El Paso of an international air terminal. Many of the articles are illustrated.

## "Civil Airports and Airways."

Archibald Black's book, "Civil Airports and Airways," is a treatise on civil airports, written from the commercial standpoint. It covers, in non-technical language, all phases of problems relating to airport selection, design, construction and equipment, and is illustrated with photographs and drawings of the 1929 model airport and airway equipment. A dictionary of airport terms and an index for quick reference to any special subject are other features. The price is \$4; published by the Simmons-Boardman Publishing Company, New York.

## Air School at Montgomery, Ala.

Construction is expected to be started within 90 days on the first units of the tactical school at Montgomery, Ala., for the air service, authorized for that post by Congress. The initial unit is estimated to cost \$300,000 and will involve the construction of quarters for enlisted men and officers, hangars, landing field equipment and other facilities.

## NEW AND IMPROVED EQUIPMENT

### Concentrating Type Unit.

A concentrating type of lighting unit has been developed by the Benjamin Electric Manufacturing Company, Chicago, for locations where a powerful light, mounted well up above the working plane is required. This unit, which may be mounted from 15 to 80 feet above the working plane, concentrates the largest part of its light output directly beneath the unit, with a minimum amount of light in the upper areas or on side walls of the room.

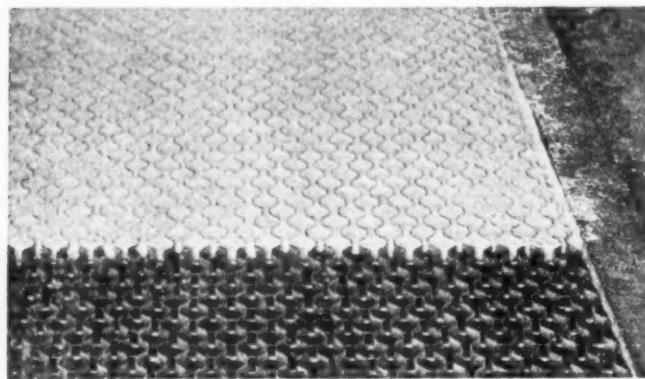


BENJAMIN UNIT FOR USE FAR ABOVE WORKING PLANE.

either indoor or outdoor locations; it is light in weight, requiring no special provisions for mounting and is easy to install. A heavy rolled copper screw thread on the neck of the reflector screws into thread on the hood to provide firm attachment, while a set screw in the hood offers additional protection by preventing the reflector from jarring loose under vibration. Hoods are furnished for either pendant or outlet box attachment. Three sizes of lamps, 750, 1000 or 1500 watts, may be used.

### Flooring for Mills and Factories.

To meet the wear and tear of traffic in plants, the carrying of heavy loads on small-wheel trucks, the dropping of boxes, castings and other heavy pieces on the floor, the Blaw-Knox Company, Pittsburgh, Pa., has placed on the market a material for steel-armoring concrete, asphalt and composition floors so that the surface will be as strong as



SECTION OF BLOW-KNOX "FLOORGARD."

any part of the floor. The material, called Floorgard, is a built-up, continuous steel mat that is laid down to form the surface of the floor. The pattern is described as pleasing to look at and scientifically designed to present such a surface to traffic that stresses will be taken care of by the steel itself, distributing loads throughout a wide area of floor. Also, that portion of the concrete appearing between the steel bars is not divided up into separate portions, but is

"monolithic" with the rest of the concrete forming the floor body.

To lay Floorgard requires no drawings nor any special tools or skill, as the material consists of a number of steel strips carefully shaped into a regular pattern which, when placed together, form a series of separate rectangles of proper size to meet the conditions under which a given floor must work. The construction can be formed to meet any floor requirement.

Some of the common uses of Floorgard are: Floors for mills and factories, floors for marine and railroad terminals, floors for textile mills, soap manufactures, sugar refineries, electroplating shops, laundries, ice plants and dairies. Under the name Pavegard, a similar steel armoring is used in connection with the strengthening of the surface of roads, streets, alleys, courtyards, bridges, bridge approaches, and other forms of pavement ordinarily subjected to extremely heavy wear.

### Improvement in Bin Design.

The Erie Steel Construction Company, Erie, Pa., announces a new bin, known as type G, portable, designed especially for platform-operated AggreMeters. The bin bottom is off-center, to allow more floor area and shelter for the operator, and it is said to be impossible for the aggregates to arch in a bin of this type, because the sides are almost perpendicular.

The type G AggreMeter plant is designed for road and general contracting work where portability is essential, and



TYPE G, PORTABLE, TWO-PIECE BIN.

It can also be adapted to central mixing plants for loading direct into the mixer hopper. This type bin is built in 60, 73, 74 and 91 ton capacities, and a 60-ton type G AggreMeter plant can be made into a 73, 74 or 91 ton plant by adding the correct top section. The 60-ton frame is standard and of strength for all sizes of type G bins.

### Jackson, Miss., Bank Plans \$750,000 Building.

Jackson, Miss.—Plans are being prepared by Wyatt C. Hedrick, Inc., Fort Worth, Tex., for a bank and office building here for the Merchants Bank & Trust Co., at a cost of approximately \$750,000. Tentative plans call for 15 stories, basement, mezzanine and tower, but it is understood that the directors of the bank may decide to increase the height to 17 or 18 stories before the plans are finally approved. The first story will be of stone, while the upper stories will be of stone or brick, with a steel and concrete frame. R. E. Kennington is chairman of the building committee.

# CONSTRUCTION DEPARTMENT

## EXPLANATORY

Additional information is published about all enterprises mentioned in this department as soon as such data can be obtained. The date at the end of an item indicates issue of the Manufacturers Record in which earlier facts about the same enterprise were published.

### DAILY BULLETIN

The Daily Bulletin is published every business day to enable its subscribers to follow up promptly the industrial, commercial, railroad, financial, building and general business development of the South and Southwest. To machinery manufacturers and dealers, contractors, engineers and others who require daily information of every new enterprise organized and details about important additions to enterprises already established, the Daily Bulletin is invaluable. Subscription price, \$40.00 a year.

#### Airports, Airplane Plants, Etc.

D. C. Washington—Constructing Quartermaster, Bolling Field, erect \$90,000 steel hangars; \$36,000 photographic building; 2-story, brick; \$50,000 central heating plant; \$60,000 field shop, 2-story, brick; private plans.

D. C., Washington—New Standard Aircraft Corp., George Daws, Sec., Paterson, N. J., advises company is not to be consolidated with Atlantic Seaboard Airways, Inc.; recently noted, reported, will merge. 4-4

Fla., Orlando—Royal Palm Airways, Walter Watson, V-Pres., New York City, has plans in progress for hangar and airplane school; corrugated iron and steel, corrugated iron siding and roofing, 1-story; private plans.

Ga., Atlanta—City plans purchasing Canfield Field, now under lease.

Ga., Columbus—Southern Airways Association, J. Ralston Cargill, Pres., 1316 Third Ave., Columbus, organized to promote trans-continental aerial highway and development of airports in South Carolina, North Carolina, Georgia, Alabama, Mississippi, Louisiana and Texas.

Ky., Hopkinsville—Committee, Edward L. Weathers, V-Pres., formed to select and secure suitable location for modern airport.

Ky., Louisville—Louisville and Jefferson County Air Bd. let contract to Moore Bros., for administration building at Bowman Field, at \$21,360; heating to Sam Forbes, 176 William St.; plumbing, Lloyd B. George; approved contract to allow Standard Oil Co. to locate service station at field. 2-28

La., Bastrop—City votes May 14 on \$25,000 bonds for municipal airport. 3-7

Md., Baltimore—Glenn L. Martin Co., Glenn L. Martin, Pres., Leland and Ponca Sts., let contract to Hughes-Foulkrod Co., Philadelphia, Pa., for first unit of airplane plant on Middle River; 300,000 sq. ft., 933x300 ft., adjacent to 1000-acre airport planned by company; first unit, costing approx. \$1,200,000, to be ready for occupancy by Aug. 15; plan beginning construction shortly; other units probably be completed in 3 years; Philip Small, Archt., Cleveland, Ohio; company has temporary plant in warehouse near Colgate Creek. 3-21

Md., Hagerstown—Fairchild Aviation Corp., Detroit, Mich., reported, acquired controlling interest in Kreider-Reisner Aircraft Co., A. H. Kreider, Pres., and plan to increase output, 110 to 465 planes annually, also construct new plant here; Aviation Corp., Graham B. Grosvenor, Pres., 280 Park Ave., New York City, recently formed \$200,000,000 holding and development company, reported, announced purchase of control of Fairchild Aviation Corp. and its subsidiaries; Fairchild Aviation Corp., through its 7 subsidiaries manufactures airplanes, aerial caferas, airplane engines and motor boats, and makes aerial surveys.

Mo., Cape Girardeau—J. A. Wright and associates, St. Elmo, Ill., plans establishing airport and flying school; city to furnish field and hangars.

Mo., Joplin—Joplin Airways, Inc., capital \$20,000, incorporated; Ralph L. Nolen; Eugene R. Stotts.

Mo., Kansas City—City, Matthew S. Murray, Director of Public Works, has low bid from T. P. Thompson for 3,160 ft. of main sewer, 18 to 24-in. pipe for mains, and 1,460 ft. of laterals to drain area near hangars, at \$19,817.

Mo., St. Joseph—Bird Wing Commercial Aircraft Co., Carl H. Wolfley, V-Pres., plans erecting additional plant on tract adjoining city airport. 2-14

N. C., Winston-Salem—Reynolds Aviation, of North Carolina, Inc., George W. Orr,

Mgr., Realty Bldg., announced, will move entire equipment of Reynolds Co., at Curtiss Field, N. Y., to municipal airport; erect complete hangars and shops.

N. C., Winston-Salem—Miller Municipal Airport Comm. let contract to Goode Construction Co., for second hangar; all steel, 60x70 ft.

Okla., Muskogee—City, T. L. Gibson, Mayor, has plans in progress for \$195,000 improvements and addition to airport; Austin Co., Archt., 16112 Euclid Ave., Cleveland, Ohio.

Okla., Tulsa—Spartan Aircraft Co. receiving bids for hangar; brick, stucco, steel; B. Russell Shaw, Archt., 810 Oliver St., St. Louis, Mo.

Okla., Tulsa—Southwest Air Fast Express receiving bids on hangar; brick, stucco, steel; B. Russell Shaw, Archt., 810 Olive St., St. Louis, Mo.

Tenn., Chattanooga—Tennessee Aircraft Corp., capital \$25,000, incorporated; Bradley Betterton, C. P. Lewellen, Farr Nutter; establish training school, operate cabin plane on scenic flights, dealer's agency and taxi service.

Tenn., Chattanooga—Office of Ch. Clerk, Div. of Supplies, Washington, D. C., receiving bids for air mail lights and auxiliary equipment for intermediate landing fields on Atlanta, Nashville and Chicago night air main route; following estimating on Chattanooga-Nashville section: Tennessee Construction & Electric Co., Chattanooga; Gustav Hirsch, Columbus, Ohio; Harrison-Wright Co., 4 W. Third St., Charlotte, N. C.; L. C. Smallwood Contracting Co., James Bldg., Chattanooga; Sutton & Frazier, Lincoln, Neb. Following on Nashville-Evansville: L. C. Phillips, Cheyenne, Wyo.; Greenwood Electrical Co., 4849 Chestnut St., Philadelphia, Pa.; Gustav Hirsch; Harrison-Wright Co.; Sutton & Frazier. 3-14

Tex., Fort Worth—City let contract to Ellsworth Long for \$25,532 hangar; 78x160 ft.

W. Va., Charleston—City council selected airport site on Midland trail, near St. Albans, known as Virginia Rubber Co. tract.

W. Va., Wheeling—City making survey for airport.

#### Bridges, Culverts and Viaducts

##### Proposed Construction

Arkansas—State Highway Comm. received low bid for 16 bridges. See Roads, Streets, Paving.

Ark., Fayetteville—See Roads, Streets, Paving.

Ark., Newport—Lt.-Col. F. B. Wilby, Dist. Engr., Memphis, Tenn., will hold public hearing May 1, on application of State Highway Comm., Dwight H. Blackwood, Chmn., Little Rock, for approval of plans for bridge across White River at Newport. 3-28

Fla., Pensacola—Escambia County Commrs., Langley Bell, Clk., considering erection of free or toll bridge across Perdido River at Lillian, cost \$200,000. See Financial News Columns.

Ga., Atlanta—City, Clarke Donaldson, Ch. of Construction, preparing plans for proposed underpass at Southern Ry. crossing, connecting Hemphill Ave. and North Side Drive; tentative plans, for 1,300 ft. approaches and underpass, from Fourteenth St. to point south of Bishop St.; 48-ft. roadway, 12-ft. sidewalks.

Ky., Frankfort—State Highway Comm., Ben Johnson, Chmn., plans building or acquiring 15 bridges: Cumberland River, near Burnside; South Fork Cumberland River, near Burnside; Tennessee River, at or near Ners Ferry; Cumberland River, at or near Smithland; Cumberland River, at or near

Canton; Green River, at or near Spottsville; Paducah; Tennessee River, at or near Egg-Ohio River, at or near Evansville, Kentucky River, at or near Tyrone; Kentucky River, at or near Boonesboro; Kentucky River, Clays Ferry; Green River, Munfordsville; Green River, near Rio; Ohio River, at or near Carrollton, and at or near Marysville; will sell \$10,767,000 bonds.

La., Crowley—See Roads, Streets, Paving.

La., Natchitoches—War Dept., Washington, D. C., approved plans Louisiana Highway Comm., O. K. Allen, Chmn., Baton Rouge, for bridge across Bayou, Pierre, near Natchitoches, under state law; replace existing bridge.

Maryland—State Roads Comm., received low bids for 2 bridges. See Roads, Streets, Paving.

Md., Snow Hill—State Roads Comm., G. Clinton Uhl, Chmn., Baltimore, preparing plans for \$60,000 bridge over Potomac River, Snow Hill.

Miss., Indianola—M. W. Gilland, Lieut. Corps of Engrs., Indianola, will hold public hearing, Apr. 12 on application of Sunflower County Bd. of Supervs. for permit to reconstruct Boyer Mill Highway bridge across Big Sunflower River, 3 mi. est of Indianola; steel highway bridge, with 228-ft. draw span over all, 100-ft. wide clear opening at river channel; lowest member of bridge lowered from 10 to 4 ft. above local high water mark.

Md., Baltimore—City, Chas. F. Goob, Ch. Engr., plans 1400 ft. rein. conc. and steel bridge over Northern Central R. R. and Jones Falls, 46 ft. wide between hand rails, asphalt roadway; estimated cost \$450,000: Henry G. Perring, Consrt. Engr., Hearst Bldg.

Mo., Hermann—J. G. White & Co., Inc., R. W. Halsey & Co., Inc., both New York, and Battles & Co., Philadelphia, Pa., offering \$2,100,000, 6% National Toll Bridge Co., convertible bonds; Bridge Co., through 3 subsidiaries is building bridges at Hermann, Mo., and 18 mi. east of Kansas City, on Missouri River. 10-25, 1928

N. C., Washington—War Dept., Washington, D. C., approved plans Beaufort County Comm., for bridge across Back Creek, about .45 mi. from Bath, under state law; replace present bridge.

Okla., Tulsa—Dewey County Commrs. granted permit to Harry Mitchell and associates, Oklahoma City, for 4,350-ft. toll bridge across South Canadian River at Camargo; contract to be let Apr. 15.

Okla., Tulsa—City, Dan Patton, Mayor, and Midland Valley R. R. Co., Chas. Kaign, Ch. Engr., Muskogee, plan overpass above railroad tracks at Woodward Ave.; K. R. Tels, City Engr.; will sell bonds.

S. C. Charleston—War Dept., Washington, D. C., approved modified plans Seaboard Air Line Ry., W. D. Fauchette, Ch. Engr., Savannah, Ga., to reconstruct bridge over South Edisto River, 2½ mi. north of Fenwick River; Substitute one steel one-beam span for 2 spans of pile trestle approach to draw bridge. 6-7-1928

Tenn., Chattanooga—Hamilton County Court considering expending \$100,000 for bridge across Chattanooga Creek. See Financial News Columns.

Tenn., Selmer—McNairy County receives bids for several bridges. See Roads, Streets, Paving.

Tenn., Shelbyville—Bedford County plans expending \$30,000 to rebuild 5 bridges over Duck River, destroyed by floods; C. W. Phillips, Judge.

Texas—See Roads, Streets, Paving.

Texas—Highway Comm. plans 2 bridges. See Roads, Streets, Paving.

Tex., Donna—Donna Bridge Co. plans

\$100,000 conc. bridge over Rio Grande River near Donna; private plans.

Tex., Fort Worth—Tarrant County will start at once on underpass under Rock Island and Santa Fe Railways at Thirty-third St.; 28 ft. wide, overhead clearance of 13 ft.; sidewalks on each side of roadway; cost \$50,000; Rock Island R. R. Co., R. H. Ford, Asst. Ch. Engr., Chicago, Ill., and Santa Fe Ry. Co., F. Merritt, Ch. Engr., Galveston, build separate bridges across underpass.

Tex., Houston—City receives bids Apr. 17 for 2 rein. conc. bridges; over Slaughter Pen Bayou, at Hughes St.; over White Oak Bayou, Lowell St.; J. V. McVea, City Engr.

Tex., Live Oak—War Dept., Washington, D. C., approved plans State Highway Comm., Austin, for bridge across Copano Bay, between Live Oak peninsula and Laramie.

Tex., Port Arthur—Gov. Dan Moody, Austin, vetoed bill of H. L. McKee, for state permit to construct toll causeway across Lake Sabine at Port Arthur, to Cameron Parish, La., Recently noted Texas Legislature passed bill.

Tex., Wichita Falls—Wichita County, E. P. Walsh, County Auditor, receives bids Apr. 29 for conc. culverts on Clara-Wilbarger road; J. M. Isbell, County Engr.

W. Va., Wheeling—City, Carl O. Schmidt, City Solicitor, considering \$1,000,000 toll free bridge between Main and Ninth St., mainland, and Zane St. island. See Financial News Columns.

#### Contracts Awarded

Ky., Louisville—Louisville Bridge Comm., Wm. Black, Chmn., let contract to Henry Bickel Co., \$130,892, for room for police and one to house electrical equipment on Louisville end of bridge, and administration building, 5 toll houses, garage, shop and equipment room under bridge on Indiana side of bridge, from Louisville to Jefferson, Ind., over Ohio River.

Md., Baltimore—J. L. Robinson Construction Co., 522 Park, general contractor for Western Maryland Ry.'s. portion of Hanover St. viaduct, McComas to Cromwell St., sublet contracts to: American Bridge Co., New York, for steel; Pugh Brother, Baltimore, steel erection; Raymond Concrete Pile Co., New York, for precast conc. piles; Maryland Steel Products Co., Baltimore, rein. steel Wm. Meyer, for fill approach work; bridge to be 364 ft. long, seven 52-ft. spand, precast conc. piles, conc. foundations, rein. conc. piers and abutments, steel girders encased in conc.; piers about 22 ft. high; 50-ft. driveway; two 28-ft. sidewalks; 130,000 cu. yd. embankment in approach fills; cost about \$340,000.

Miss., Canton—See Roads, Streets, Paving.

Miss., Pascagoula—City, V. P. DeJean, Chk., let contract to William Kehoe & Son, Lewis State Bank, Tallahassee, Fla., for rein. conc. box culvert along Commodity Ave. from Carty St.; Franklyn H. McGowen, Consol. Engr., Ocean Springs.

Mo., Independence—Jackson County, reported let contract to H. Muston, Mountain Grove, \$53,350, for 3 conc. bridges.

Oklahoma—State Highway Comm., Oklahoma City, let contracts for 16 bridges: Noble County—Project No. 140-G, bridges, Hyde Construction Co., Enid, \$45,047; Grady County—Project 162-E, 166 mi. bridge, Tom Collins, Cushing, \$95,915; Washita County—Project No. 205-I, bridges, Joe Biggs, \$14,003; Custer County—2-5-J, bridges, Joe Biggs, \$28,744; McIntosh County—No. 245-H, bridge, Roberts-Fisher, \$29,420; Choctaw County—No. 246, bridge, Altman-Rodgers Co., Oklahoma City, \$151,500; Dewey County—No. 257-A, Gaines & Yeakum, 519½ W. Main St., Oklahoma City; Major County—433-E, bridge, L. B. Bybee, \$11,510; Washita County—497-F, bridges, James Bros., \$27,901; Beckham County—No. 551-C, bridges, Standard Paving Co., 2119 E. 11th St., Tulsa, \$97,028; Caddo County—No. 552-D, bridge, Standard Paving Co., \$27,636; Delaware County—560-I, bridge, Stephens County Construction Co., Marlow, \$26,610; Jefferson County—570-C, bridges, Gaines & Yeakum, \$33,514; Pittsburg County—583-C, bridges, S. E. Gray, \$9,393; Pushmataha County—598-B, widen bridges, Witt-Williams & Tatnum, \$41,886; McCurtain County—637, bridge Hoover & Montgomery, \$9,756; Ottawa County—628, bridge, E. S. Alderman, \$13,874; Harper County—630, bridge, L. S. Fisher Construction Co., \$20,205.

Tex., Dallas—Dallas County let contracts for following materials for Cadiz St. conc. bridge over Trinity River: To J. Lee Vilbig, 2517 Eakin St., for gravel and sand; Owens Lumber Co., 3310 Commerce St., and Moore & Co., 400 Main St., for cement; Mosher Steel & Machinery Co., Maple Rd., all Dallas, for struct. steel; recently noted, McKenzie Construction Co., 716 Travis Bldg., contractor for construction.

W. Va., Moundsville—Consolidated Engineering Co., Natl. Bk. of W. Va. Bldg., Wheeling, has contract for steel and conc. bridge at east end of Jefferson Ave. extension.

3-14

#### Clayworking Plants

Tex., Crockett—Thos. Self considering installation of brick plant. See Want Section—Machinery and Supplies.

Tex., San Antonio—R. A. Hay, Box 1330, plan development of clay deposit for ceramic and brick manufacture. See Want Section—Machinery and Supplies.

W. Va., Newell—The Homer Laughlin China Co., let contract for plant No. 8 to H. K. Ferguson Co., Hanna Bldg., Cleveland, O.; tunnel kiln, to Harrop Ceramic Service Co., Columbus, O.; decorating kilns for plant will be supplied by Holcroft & Co., 6545 Epworth St., Detroit Mich.; cost, \$1,500,000.

3-21

#### Coal Mines and Coke Ovens

W. Va., Charleston—Kelley's Creek Colliery Co. acquired Coalburgh Colliery Corp.

#### Cotton Compreses and Gins

Ark., Salem—Farmers Gin Co., J. E. Wolf, erecting cotton gin, daily output 50 bales; main house, 20x60 ft. with sheds 20x40 ft., also engine room, 20x24 ft., seed house, 20x40 ft., cotton house, 24x40 ft.; sheet iron walls and roof, conc. floors; construction by owners; install boiling machine and cleaners. See Want Section—Machinery and Supplies.

Tex., El Paso—Union Compress & Warehouse Co., Fall Bldg., Memphis, Tenn., operating plants in Tennessee, Alabama, Mississippi and Louisiana, acquired El Paso Compress and Fumigating Co.; will increase capital stock \$1,000,000 to \$2,000,000 preferred stock and increase common stock of no par value from 25,000 shares to 60,000 shares.

Tex., Gonzales—Gonzales Cotton Warehouse Co. constructing addition to plant; double capacity of storage sheds.

#### Cottonseed-Oil Mills

Miss., Brookhaven—W. T. Smith acquired Brookhaven Cotton Oil and Fertilizer Co.

#### Drainage, Dredging and Irrigation

Ala., Birmingham—City Comm. contemplates bond issue for several million to provide funds for widening, deepening and straightening Village and Valley Creeks; may be submitted to voters early in 1930.

Louisiana—War Dept., reported, authorized commencement of construction work on Section 4 of Louisiana-Texas Intracoastal Waterway, between Mermentau and Calcasieu River, in Louisiana; \$3,350,000 available; immediately request bids on 8,600,000 cu. yd. earth hauling.

N. C., Beaufort—War Dept. authorized awarding contract to Waldeck-Deal Dredging Co., 832 N. W. 12th Ct., Miami, Fla., for dredging section V on Inland Waterway extension, Beaufort to Wilmington.

3-21

Tex., Raymondsburg—Trinity Farm Construction Co., 1104 Mercantile Bk. Bldg., with contract with Willacy County Water Dallas, advises work to be done in connection Control and Improvement Dist. No. 1 is approx. 15,000,000 cu. yd. of earth work, 40,000 cu. yd. of mass conc., 26,000,000 sq. ft. conc. irrigation canal lining; use control gates, head gates, etc., manufactured by Butchart Co., Denver Col.; concrete to be furnished by Trinity Portland Cement Co., Houston and Dallas.

2-7

Va., Norfolk—U. S. Engr. Office receives bids until May 4 for dredging and disposing of approx. 7,000,025 cu. yd. of material in widening Norfolk Harbor, 40-ft. channel bet. Hampton Roads and junction of Southern and Eastern Branches of Elizabeth River. See Want Section—Bids asked.

#### Electric Light and Power.

**Electric light and power work in connection with many LAND DEVELOPMENT operations involves the expenditure of large sums of money. See that classification for details.**

Ala., Millport—Alabama Power Co., Birmingham, install street lights; recently acquired electric utility interests of Millport Gin, Ice & Power Co.

2-7

Ala., Montgomery—Columbus Electric and Power Co., Columbus, Ga., applied to Alabama Public Service Comm. for permission to increase capital, \$6,500,000 to \$10,500,000; permission already granted by Georgia Public Service Comm., Atlanta.

Ala., Opelika—Alabama Power Co., Birmingham, reported, negotiating for light plant and city franchise.

Ark., Hot Springs—Arkansas Power and Light Co., H. C. Couch, Pres., Pine Bluff, reported, let contract to Arkansas Portland Cement Co., Saratoga; Trinity Portland Cement Co., Dallas and Fort Worth, Texas; Atlas Portland Cement Co., Waco, Tex., and 25 Broadway, New York, and National Cement Co., Birmingham, Ala., for cement costing \$300,000 for Carpenter dam, construction begun; dam will be 100 ft. high and 1,000 ft. long; McGeorge Construction Co., Pine Bluff, completed grading for 5-mile railroad track from dam site to Hot Springs.

Fla., Vero Beach—Florida Power & Light Co., Miami, reported negotiating for municipal light plant, and 30 yr. franchise.

Ga., Atlanta—City authorized installation white way on Spring St., from Marietta St. to North Ave. and for business center on S. Boulevard between Rosalia and Hansell Sts.

Ga., Rutledge—Georgia Power Co., Atlanta, reported, acquired municipal electric distribution system.

Miss., Chunky—Harrison-Wright Co., Charlotte, N. C., recently reported low bidders for power plant to be erected by Mississippi Utility Co., Lamar Life Bldg., Jackson, Miss., advise: "Lack of funds have delayed procedure. No definite information now."

Mo., California—City defeated \$65,000 electric light bonds.

Mo., Cape Girardeau—Missouri Utilities Co., controlled by Community Power & Light Co., Planters Bldg., St. Louis, applied for permit from Missouri State Highway Comrs., Jefferson City, to construct electric power line from Cape Girardeau to County Farm.

Mo., Excelsior Springs—Missouri Gas and Electric Co., applied to Missouri State Highway Comm., Jefferson City, for permission to construct power line along State Highway No. 10 in Clay County.

Mo., Louisiana—Merger, reported, of Missouri Edison Co. of Louisiana, owned and operated by A. H. Latimer and J. W. Peterson, with East Missouri Power & Light Co., Troy; supply city of Louisiana and towns in Pike, Lincoln, St. Charles, Montgomery and Warren counties.

Mo., Mexico—Missouri Power and Light Co., Bd. of Trade Bldg., Kansas City, acquiring right of way for transmission line between Mexico and Jefferson City; also line from Jefferson City to New Bloomfield and Holt Summitt to furnish power for towns in vicinity.

North Carolina—Southern Public Utilities Co., Charlotte, granted franchise in Yadkinville, Boonville and East Bend; will construct power line from Elkin toward Boonville, to Yadkinville and East Bend to Smithtown.

Tenn., Erwin—Henry L. Doherty, 60 Wall St., New York, reported, acquired Erwin Power and Light Co.

Tex., Beaumont—Gulf States Utilities Co., 326 Liberty St., construct substation Travis and Mulberry Sts.; G. Sargi, Engr. of Stone & Webster, Inc., Boston, Mass., in charge of electrical installation.

Tex., El Paso—El Paso Electric Co., authorized Stone & Webster Engineering Corp., 49 Federal St., Boston, Mass., to design and construct power station to be known as Rio Grande Power Station, located on Rio Grande River; struc. steel, conc. and brick building supported on conc. piling will house 2 boilers, 2 turbine generators with combined capacity of 40,000 kw. and auxiliaries. Contracts have been let as follows: Piling, Raymond Concrete Pile Co., 140 Cedar St., New York; steel, Virginia Bridge & Iron Co., Roanoke, Va.; boilers, Babcock & Wilcox Co., 85 Liberty St., New York; turbine generator, Westinghouse Electric and Mfg. Co., East Pittsburgh, Pa.; El Paso Electric Co. is subsidiary of Engineers Public Service Co., Inc.

Tex., Robstown—Central Power and Light Co., San Antonio, soon begin construction of transmission line between Sinton and Robstown; H frame construction equipped with special design for type suspended insulators; survey completed; right of way being purchased.

Va., Petersburg—Virginia Electric and Power Co., Richmond, granted 30 yr. power and lighting franchise by town of Colonial Heights.

**Fertilizer Plants**

Tex., Houston—City, G. L. Fugate, Asst. City Engr., will probably submit plans for remodeling and reconstruction of burned plant and construction of \$50,000 additional unit for transforming sewage into fertilizer at North Side Sewage Disposal plant.

**Flour, Feed and Meal Mills**

Miss., Lexington—George S. Beall, Jr., erect feed mill.

Mo., North Kansas City—North Kansas City Alfalfa Mills Co., construct feed mill; 60x150 ft.; 2 story.

**Foundry and Machine Plants**

Tex., Houston—Reed Roller Bit Co., W. L. Childs, V.-Pres.-Gen. Mgr., acquired 10.04 acres adjoining present plant, Mack St. and Avenue Q, in Niel Esperson Industrial Dist., for future industrial expansion; reported, plans \$5,000,000 expansion program to extend over period of about 5 years; erect drop forge plant and other buildings as needed. 4-4

**Gas and Oil Enterprises**

Ala., Gadsden—Central Public Service Corp., 105 W. Adams St., Chicago, Ill. (owners of Gadsden gas plant), contracted with Southern Natural Gas Corp. to furnish natural gas to Gadsden.

Ark., Marianna—Cherokee Public Service Co., Muskogee, Okla., negotiating for gas franchise.

Ark., Rogers—C. O. Moore Co., Stamford, Tex., soon begin construction of natural gas system; has franchise; T. J. Clyde, of Engr. Dept. of company, in charge. 3-14

Fla., Fort Lauderdale—Port Everglades Refining Co. to be organized by C. K. MacFadden, 90 West St., New York, reported, to construct \$3,500,000 to \$4,000,000 oil refinery at Port Everglades development at Lake Mabel; refinery and complementary plants to require 88 to 100 acres; employ from 150 to 200 people; Fisher Williams Corp., 103 Park Ave., New York, will be contractors; David Sholtz, 220 S. Beach St., Daytona Beach, attorney for company.

Fla., Miami Beach—City votes May 7 on ratifying amendment to gas franchise ordinance permitting erection of gas plant outside city; Charles E. Starr, Miami Beach and Philadelphia, Pa., and C. P. Holzber, care of Century Trust Co., Baltimore Md., lately noted granted franchise. 12-20

Ga., Atlanta—Central Public Service Corp., 105 W. Adams St., Chicago, Ill., closed 20 yr. contract for delivery of gas from Louisiana gas field with Southern Natural Gas Co. of Louisiana, First Natl. Bk. Bldg., Birmingham, Ala.; will distribute natural gas in Atlanta, Rome, Macon and Griffin, Ga.; Anniston, Gadsden, Selma, Montgomery and Tuscaloosa, Ala.; Columbus and Meridian, Miss. 3-28

Ky., Henderson—City Bd. of Commsrs. soon call for bids for natural gas franchise.

Ky., Owensboro—Greenspon's Sons Iron and Steel Co., 3130 N. Hall St., St. Louis, Mo., reported negotiating for gas franchise.

La., Lake Charles—Progressive Oil Co., capital \$50,000, incorporated; J. J. Konce, W. C., McElveen, both Sulphur.

Maryland.—Consolidated Gas, Electric Light and Power Co., Lexington Bldg., Baltimore, granted permission by Anne Arundel County Commsrs. to extend gas lines to Elverton, Severna Park, Round Bay and Pines; making canvas at Pasadena, may extend there.

Miss., Biloxi—Shell Petroleum Corp., Shell Bldg., St. Louis, Mo., reported, acquired Superior Oil Co. of Biloxi and Ocean Springs.

Miss., Greenwood—Shell Petroleum Co., Shell Bldg., St. Louis, Mo., erecting storage plant; T. M. Deveny, in charge installation; Howell & Pearce, Constrs.

Mo., St. Louis—Mississippi River Fuel Corp., 506 N. Fourth St., St. Louis, Christy Payne, Pres., (owned by Electric Power & Light Corp., 2 Rector St., New York, and Standard Oil Co. of New Jersey, 26 Broadway, N. Y., and associates), let contract through Purchasing Dept. of Standard Oil Co. to A. O. Smith Corp., Milwaukee, for 325 miles of 22-in. 5/16-in. thickness welded pipe; 19 miles of 22-in. 5/16-in. thickness, lapwelded pipe and 105 miles of 22-in., 11/32-in. thickness, to National Tube Co., Frick Bldg., Pittsburgh, Pa.; the National Company will also furnish 25 miles of 16-in. 5/16-in. thickness lapwelded pipe for feeder line to contract for crossings over White, Arkansas and Mississippi Rivers awarded to Ford, Bacon & Davis, Inc., 39 Broadway, New York, which will also supervise construction of entire project through Oklahoma Contract-

ing Co., Kennedy Bldg., Tulsa, Okla., contractors, who will build northern half of lines and Williams Brothers, Inc., 302 S. Cheyenne St., Tulsa, Okla., who will build southern half; 18 engines of 100 h.p. each will be furnished by C. and G. Cooper Co., Mount Vernon, O., and 12 pumps will be supplied by Worthington Pump & Machinery Corp., 2 Park Ave., New York City; 5 compression stations of 6000 h.p. each will be built by Mississippi River Fuel Corp.

Okl., Alex—Lone Star Gas Co., Ft. Worth, Texas, granted natural gas franchise.

Texas—Lion Oil Refining Co., El Dorado, Ark., and Midland Bldg., Kansas City, Mo., reported, contemplates issuance of \$3,000,000 bonds in connection with proposed purchase of producing properties of oil company in Texas.

Texas—Lone Star Gas Corp., Farmers Bldg., Pittsburgh, Pa., construct gas line from Gainesville through portions of Cooke and Montague counties to supply Lindsay, Myra, Muenster and St. Joe.

Texas—Godfrey L. Cabot Co., Inc., 294 Washington St., Boston, Mass., reported, construct 2 carbon plants in Texas-Panhandle each with initial capacity of 25,000,000 cu. ft. of gas; one of plants will be in Borger area, other in Gray County, near Pampa; company has taken over 2 permits recently granted Skelly Oil Co. to burn 25,000,000 ft. of gas daily for carbon black purposes on each of 2 locations in Panhandle district. 4-28

Tex., Houston—Shell Petroleum Co., Shell Bldg., St. Louis, Mo., advises that steel so far furnished for refinery has been fabricated by Houston Structural Steel Co., using all Carnegie sections; small quantity of steel has been furnished by Muskogee Iron Works, Muskogee, Okla. 4-4

Texas—Superior Oil Corp., 701 Wright Bldg., Tulsa, Okla., recently acquired entire outstanding stock of Moody Corp., consisting of 333,200 shares; property consists of 65,000 acres of undeveloped leases located in Texas also daily production on Gulf Coast of approximately 4600 bbls., gasoline plant located at Eastland, Tex., operated under Adams Gasoline Co., with daily output of 3500 gals. daily.

Tex., Dallas—Fenway Oil and Gas Co. incorporated; W. S. Blair, Athletic Bldg.

Tex., Fort Worth—Reliance Oil Royalty Co., incorporated; A. G. Reed, Fort Worth Natl. B. Bldg.

Tex., Houston—Truscon Steel Co., Youngstown, Ohio, and Chemical Bldg., Houston, reported, has contract for erection of two steel fabricated buildings at 6230 Navigation Blvd. for Houston Oil Co.; cost \$11,000.

Tex., Houston—Shell Petroleum Corp., let contract to J. B. Townsend, Post-Dispatch Bldg., for office building, gate house and 9 staff houses at new plant on ship channel.

Tex., Mt. Pleasant—Arkansas Natural Gas Co., subsidiary of Cities Service Co., 60 Wall St., New York, reported, plans extension of natural pipe line system into Northeast Texas as soon as necessary franchises for distributing systems are obtained in 10 of larger towns; city of Mt. Pleasant granted franchise.

Tex., Pampa—Wilcox Oil and Gas Co., reported, plans erection of 2000 bbl. daily capacity refinery; reconstructing 3000 bbl. refinery at Bristow, Okla.

Tex., Perryton—City granted Wm. Horwitz and associates natural gas franchise.

Tex., Port Arthur—The Texas Co., 17 Battery Place, New York, let contract to Horace E. Williams, 833 Howard St., New Orleans, La., for construction loading docks at terminals. 4-4

Tex., San Angelo—Thomas B. Longre of Brown County Gas Co., Brownwood, negotiating for gas franchise for industrial purposes; has franchise at Brownwood; is constructing gas line, Brownwood to Waco; expend \$1,200,000 for laying 10-in. line with capacity of 20,000,000 cu. ft. gas daily.

Tex., San Antonio—Salt Flats Oil Co., incorporated; H. Dickson, 253 Argyle St.

Tex., Sherman—Sherman Oil and Gas Co., capital \$15,000, incorporated; C. R. Hall, H. G. Stinnett.

Tex., Wichita Falls—J. J. and M. Taxman Refining Co., capital \$50,000, incorporated; J. J. and M. Taxman; acquired plant of Miller Refinery Co.; will operate.

**Ice and Cold-Storage Plants**

Ark., Little Rock—Arkansas Cold Storage Co., expend \$22,500 for repairs.

Tex., Fort Worth—Dry Ice Corp. of Texas and Louisiana B. W. Ward, Sec.-Treas., 2408 Esperon Bldg., Houston, let contract to Butcher & Sweenev, 715 N. W. 21st St., Fort Worth, for dry ice plant. 3-28

**Land Development**

Ala., Montgomery—H. E. Stokes & Co., 433 Carter Hill Rd., incorporated H. E. Stokes.

Fla., Fort Lauderdale—Huff Realty Co., capital \$100,000, incorporated; C. D. Huff, T. G. Farmer.

Fla., Jacksonville—Perkins-Stegall Co., incorporated; B. C. Perkins, St. Johns Ave., D. G. Steagall.

Fla., Miami—Glenn & Co., incorporated; Wheeler Glenn, Ingraham Bldg.

Fla., Orlando—Seminole Orange Land Co., incorporated; T. A. Bailey, 655 Park Lake Ave.

Fla., Rockledge—Rockledge Gardens Co., incorporated; G. C. Edwards, C. T. Lussier.

Fla., West Palm Beach—City acquired West Palm Beach Country Club and 18 hole golf course.

Ga., Macon—Elmwood Farms, Inc., capital \$35,000, incorporated; W. P. Stevens, Massell Apt.

Ga., Thomasville—Glen Arven Land Co., develop additional 9 holes to golf course at Glen Arven Country Club; Stiles and Van Kleek, Golf Archts., 97A Newbury St., Boston, Mass.

La., Lake Charles—Denton Farms Co., Inc., Calcasieu Natl. Bank Bldg., incorporated; Elwin C. Willard; E. H. Lambert.

Miss., Bay St. Louis—Paramount Land & Investment Co., incorporated; Bill Baltar, Gulfport.

Mo., Kansas City—Jewell Development Co., incorporated; W. R. Jewell, 3841 Forest St.

Mo., St. Louis—Sulgrave Realty Co., J. M. Blayney, 1711 Liberty Central Bldg., develop 35 acre subdivision; install water, sewers, roads, etc.; Chas. W. Fullgrap, Seven Gables Bldg., Clayton, Mo.

Mo., Webster Groves—Reichert Realty Co., capital \$15,000, incorporated; C. A. Reichert, Webster Groves; Arthur Reichert, St. Louis.

Okl., Tulsa—City, Dan W. Patton, Mayor, plans expending \$500,000 for park improvements; erect zoological building of native stone at Mohawk Park, central section to contain administration offices and exhibit rooms, wing, semi-open for larger animals; complete second nine hole golf course; surface roads; additional landscaping; additional drinking water; erect greenhouses, etc.

S. C., Camden—Colonial Lake Co., incorporated; R. M. Kennedy, Jr., and R. M. Kennedy.

Tenn., Memphis—W. G. Curry develop subdivision on 15 acre tract N. E. Cor. Evergreen St. and Chelsea Ave.; construct 15 bungalows.

Tex., Austin—City plans developing Blum Creek property for park.

Tex., Corpus Christi—Maston S. Nixon, Nixon Bldg., develop 33 acres south of town.

Tex., Denton—City voted park bonds. See Financial News Columns.

Tex., Fort Worth—Forest Park Hills Subdivision, George R. Veeder, John J. Harden; develop 160 acre subdivision.

Tex., Galveston—Bay Shore Club, Grafton T. Austin, Pres., 2128 B St., has option on 20 acres enlarge golf course; erect clubhouse.

Tex., Houston—Luff Meyer Realty Corp., incorporated; L. J. Luff, 102 Linwood St.

Tex., Houston—Tom Berthelsen acquired 19 acres on Chocolate Bayou Rd.

Tex., Houston—Parkwood Co., 2111 Clark St., incorporated; J. S. Park, C. C. McRae.

Tex., Houston—Trio City Land Co. incorporated; C. E. Reeves, Esperon Bldg.

Tex., Nacogdoches—Piney Wood Country Club, capital \$15,000, incorporated; T. E. Baker, R. W. McKinney.

Tex., Port Arthur—Port Arthur Golf Company, Inc., incorporated; Stuart Martin, Lee Bock; developing golf course; J. P. Seals, Birmingham, Golf Course Archt.

Tex., Raymondville—Delta Orchards Co. acquired 22,133 acres under cultivation and 4914 acres uncultivated in Willacy County; also town sites of Hargill, LaSara, Rollo, Santa Margerita, Willamer and Santa Monica and 1100 acres of citrus orchards and 27,744 acres lying within boundaries of new irrigation district. 3-7

Tex., San Antonio—Watson Realty Co., Inc., capital \$15,000, chartered; W. O. Watson, 927 W. Gramercy St.

Tex., San Antonio—Hot Wells Tourist Park Co., C. DuBose, Pres., 102 E. Huisache St., develop tourist camp; erect 78 tourist lodges; J. DePuy, Contrs., 712 Builders Exchange.

Tex., San Benito—Cuater Development Co., incorporated; R. G. Treon, E. N. Broan.

Tex., Seguin—City, Max Starcke, Mayor, plans park improvements, including sprink-



Manufacturers Exch., Herbert Godchaux, Pres., leased portion of building, 814-816 Central St.; move garment plant to new location from Seventh and Central St.; install 75 additional machines; plans doubling output.

Mo., Kansas City—Floor Accessories Co., Inc., Finance Bldg., capital \$100,000, chartered; Marvin M. Breuer, Geo. A. Mackenzie.

Miss., Kokomo—United Poultry Product's Association, capital \$40,000, incorporated; J. P. Fraim, Kokomo; J. B. King, Tylertown.

Mo., New Haven—Langenberry Hat Co., Theo. Honesko, V.-Pres., 1110 Washington Ave., St. Louis, completed plans for \$20,000 plant; 2-story, brick; private plans.

Mo., St. Louis—Robert Gaylord, Inc., C. W. Gaylord, Pres., 2817 S. 11th St., erect \$10,000 addition to corrugated fibre board products manufacturing plant; steel girders, wood floors; work by company's forces; private plans.

Mo., St. Louis—Broderick & Bascom Rope Co., 801 N. Main St., let contract to Wimmer Contracting Co., Victoria Bldg., for \$150,000 addition to rope plant, consisting of warehouse and office building; rein. conc., brick facing, approx. 35,000 sq. ft. floor space; let contract to McBride Mechanical Equipment Co., 2639 Locust St., for plumbing; Larkin Engineering Co., Consulting Engr., Granite Bldg. 4-4

Mo., St. Louis—Paramount Shoe Mfg. Co., let contract to Kaplan Construction Co., 806 Chestnut St., for shoe manufacturing plant, Chippewa and Holt St.; 3-story, part basement, 50x120x171 ft., rein. conc., brick. 3-28

Mo., St. Louis—Mound City Upholstering Mfg. Co., capital \$15,000, incorporated; Sam Millman, 5351 Terry St.

Mo., St. Louis—Corley-Gunn Printing Co., incorporated; Frank W. Corley, 4303 McPherson St.

Mo., St. Louis—Incandescent Supply Co., Inc., capital \$50,000, chartered; M. Lipschultz, Lemay Ferry Rd.

N. C., Charlotte—Foremost Dairy Products, Inc., Hugo J. Larsen, V.-Pres. and Gen. Mgr., Jacksonville, Fla., advises regarding Mecklenburg Dairy Co.'s plant on which company obtained option; will put in first-class condition, equipped to turn out highest and purest grades of milk, cream, ice cream and other milk products. 3-28

N. C., Durham—Durham Morning Herald, 116 Market St., expend \$33,000 for remodeling and addition to building, Market St.; construction to begin in few days.

N. C., Forest City—Rutherford County Laundry, Inc., capital \$50,000, chartered; O. B. Bell, Forest City; C. M. Fortune, Asheville.

N. C., Gastonia—R. L. Taylor, Newton, acquired Carolina Printing Co., Shuford Bldg.

N. C., Hickory—Blue Ridge Products Co., J. L. & L. L. Taylor, Rutherfordton, acquired dairy and ice cream plant of the Shufords; erect modern ice cream plant to serve Hickory, Lenoir, Lincolnton and Newton.

N. C., Raleigh—A. G. Murdock erecting plant, Harrison Ave., bet. Morgan and Tryon St.; brick steel, conc.; cost \$30,000; to be occupied by White Ice Cream Co., 106 S. Wilmington St.; to be completed about July 15.

N. C., Salisbury—Salisbury Electric Repair Co., capital \$50,000, incorporated; E. I. Wingeate, Jack J. Jordan.

N. C., Shelby—Garner Garment Corp. to be formed with Gov. O. Max Gardner, head; establish garment manufacturing plant.

N. C., Winston-Salem—Export Leaf Tobacco Co., 111 E. Tenth St., erect \$80,000 addition to tobacco plant; additional story, 63x235, brick; will provide more space for drying rooms.

Oklahoma—J. C. Penney Co., Inc., 330 W. 34th St., New York City, reported, announced purchase of J. B. Byars Co., Denver, Col., including W. J. Lindsay Co. and J. N. McCracken Co., Livingston, Mont.; the 2 operating stores in South in Missouri, Oklahoma and Texas.

Okl., Altus—Wilson & Co. let contract to Hatmon & Madison Construction Co., for \$10,000 creamery addition; 32 x 92 ft.

Okl., Ontario—Engle-Picher Lead Co., John A. Schaeffer, V. Pres., Joplin, Mo., reported, planning \$100,000 addition to smelting plant.

Okl., Ponca City—R. T. Pettingill to be in charge of \$15,000 vegetable canning plant being installed; purchasing machinery.

Okl., Tulsa—Foxboro Co., Foxboro, Mass., manufacturer of gauges, controllers and other measuring instrument, erect factory and distributing plant, 28 N. Guthrie St.

Okl., Walters—Sam & Wayne Potter acquired Palace Cleaning Works; to be operated under name of Nifty Cleaners.

Tenn., Chattanooga—Fru-Li-Kep Egg Corp. of Chattanooga, capital \$100,000, incorporated; J. E. Reece, 723 McCallie Ave.

Tenn., Knoxville—Sterchi Bros. Stores, Inc., issuing \$2,500,000 7% convertible first preferred stock, through Blyth & Co., Grant Bldg., Atlanta, Ga.; company organized in Delaware to consolidate 50 stores engaged in retail and wholesale furniture business; stores located in Tennessee, Kentucky, Virginia, North Carolina, South Carolina, Georgia, Florida and Alabama; plants, which will be leased and operated by company, produce certain staple lines of furniture; proceeds of issue and sale of 40,000 shares of common stock to be used to pay cash portion of purchase price of properties to be acquired, to retire short term indebtedness and to provide additional working capital necessary for expansion of business. 4-4

Tenn., Nashville—Southern Textile Machinery Co., Second and Norton Sts., Paducah, expend \$50,000 for plant to manufacture tape condensers and intermediate feeds, used in manufacturing woolen cloth; plan to eventually enlarge business to include manufacture of complete woolen cards.

Tenn., Nashville—Spurlock-Neal Co., 214 Second Ave., N., and several other houses in South merged with McKesson & Robbins Co., Bridgeport, Conn.; completes chain of wholesale drug houses from Atlantic to Pacific; includes Peter Neat-Richardson Co., Louisville; Doster-Northington Co., Birmingham; Bedsoe-Colvin Drug Co., Mobile; Parker-Blake Co., New Orleans; C. G. Lincoln Drug Co., Little Rock; Schuh Drug Co., Cairo, Ill., and Merrill Drug Co., St. Louis.

Tex.-Ark., Texarkana—National Lumber & Creosoting Co. issuing \$1,800,000 first mortgage 15-year serial 5 1/2% gold bonds, series A, through Commercial National Co., Inc., Shreveport, La.; company's operations include treating ties, bridge timber, piling, poles and other construction material with chemical preservatives and of handling these products commercially, both in treated and untreated state.

Tex., Beaumont—F. W. Krieter Battery Co. preparing plans for \$30,000 building, Main and Mulberry St.; 60 x 120 ft.

Tex., Dallas—Kooler Air Engineering Co., incorporated; Pat S. Russell, Magnolia Bldg.

Tex., Del Rio—Delaware Punch Bottling Co., incorporated; George W. Baker, J. E. Davenport.

Tex., Denton—City, B. W. McKenzie, Mayor, voted \$135,000 bonds, \$30,000 for fire department improvement.

Tex., El Paso—Neonlight Laboratories, Earl L. Murray, Los Angeles, Calif., erect \$100,000 plant to manufacture Neon signs, within 60 days; turn out 200 ft. of Neon tubing daily.

Tex., Fredericksburg—William Moellendorf acquired site of former Schult bakery; erect bakery plant.

Tex., Gonzales—I. Stein, Chicago, Ill., has plans under way for plant for manufacturing all kinds of feather products, including feather pillows; employ over 200; construction to begin in 30 days.

Tex., Lubbock—Rogers Asbestos Co., Inc., E. M. Rogers, Pres., Buffalo & Commerce Sts., Houston, acquired interests of Worthy Roofing Co.; to be operated under name of Rogers Roofing Co., Inc., E. M. Rogers, Pres.

Tex., Marshall—East Texas Creamery, Inc., capital \$20,000, chartered; Heringda Y. Chew, Woo Schuck.

Tex., Memphis—Company formed with Lyman E. Robins, Pres., to acquire Memphis Democrat.

Tex., Rotan—Double Mountain Creamery incorporated; J. E. Johnson, Thomas Seelys.

Tex., San Angelo—Snowwhite Creamery, H. C. Vandervort, Mgr., merged with Southwestern Dairy Products Co.

Tex., San Angelo—San Angelo Provision Packing Co., capital \$20,000, incorporated; A. M. Hagan.

Tex., San Antonio—Globe Printing Co., B. G. Kischell, Mgr., has low bid from J. M. Chittim, Builders Exch., Bldg., for building, 634 Main Ave., at \$16,497; 2-story, 49 x 50 ft., rein. conc., brick, tile, stucco, cast stone trim, comp. roof; Matthews & Kenan, Consulting Engr., 1615-16 Smith Young Tower; Kelwood Co., Archt., Travis Bldg.

Tex., San Antonio—McKenzie Construction Co., Smith-Young Tower, increasing capital stock, \$150,000 to \$300,000.

Tex., Schulenburg—Carnation Milk Products Co., R. O. Hensley, Ch. Engr., Oconomowoc, Wis., beginning erecting \$300,000 condensery; purchased 300-h. p. boilers from Hedges-Walsh-Weldner Co., Chattanooga, Tenn.; install 50-ton ice machine, 150 kw-a uniflow generator set, oil burning and oil handling equipment for boilers, chimney, 6x175 ft., rein. conc.; use 20-year specification

built-up roof, 500 sq. ft. area; 2 wells and pumping equipment for 100 g. p. m.; 50 electric motors, power and light wiring; install milk handling machinery; large part of equipment made by company; plans by company's Engineering Dept.; W. H. Robinson, Construction Supt., Schulenburg. 4-4

Tex., Wichita Falls—W. F. Parrish, 1102 Alma St., let contract to Mytinger & Walker, Harvey-Sulder Bldg., for building, 1006 Holiday St.; 1-story, brick, 40x75 ft.; to be occupied by Pure Ice Cream Co.

Va., Appomattox—Southern Battery and Electric Corp., capital \$50,000, incorporated; A. R. Harwold.

Va., Richmond—C. F. Sauer Co., C. F. Sauer, Jr., Pres., 2000 W. Broad St., drawing plans for addition to extract manufacturing plant, Broad and Meadow St., necessitated by recent acquisition of Duke Products Co., Greenville, S. C.

W. Va., Milton—Highway and Building Contractors—R. L. Black & Co., capital \$50,000, incorporated; R. L. Black, Milton; S. D. McGee, St. Albans.

W. Va., Newell—See Clayworking Plants.

Va., Ocean View, Sta. Norfolk—Ocean View Construction Corp., capital \$50,000, incorporated; R. E. Raiford, Trust Co. Bldg.

Va., Richmond—Stewart-Warner Speedometer Corp., W. J. Zucker, Pres., 1227 W. Broad St., changing name to Stewart-Warner Corp. and increasing maximum authorized capital stock, 600,000 shares without par value to \$20,000,000.

### Motor Bus Lines and Terminals

Ala., Athens—L. C. Hightower let contract to J. W. Chambers Lumber Co. for \$51,000 bus terminal to be occupied by No. 7 Bus Lines, Inc.

Ark., Fort Smith—R. K. Rogers applied to City Comn. for franchise to operate buses within city.

Ky., Logmont—Commr. of Motor Transportation authorized United Coach Corp., Williamsburg, to operate interstate motor bus line between Logmont, Ky., and Pruden, Tenn.

Miss., Jackson—Choctaw Motor Lines, Inc., capital \$2,000,000, applied to Mississippi Railroad Comm. for permission to cover state in network of trunk lines to connect with other lines at state lines; Milton S. Dina-wanger, Blan R. Maxwell, Chamber of Commerce Bldg., W. J. Prescott, 234 S. Belvedere St., all Memphis Tenn., and others interested.

Mo., St. Louis—Henri Chouteau, International Life Bldg., immediately begin erecting \$450,000 union bus depot, Tenth and Morgan St., for Pickwick-Greyhound, Inc.; 5-story, 80x100 ft., polished red granite, trimmed with red and gold terra cotta, fireproof; first floor to include complete passenger station facilities, with large rotunda, cafeteria, restaurant and shops; hotel to occupy 4 upper floors; Aegeerter & Bailey, Archts., Railway Exch. Bldg.

W. Va., Wheeling—Wheeling Public Service Co. has been authorized to operate bus line between Wheeling and Pennsylvania State line near West Alexander.

### Motor Cars, Garages, Filling Stations

Fla., Jacksonville—Joseph H. Walsh, 800 Main St., erect service station, Cottage and Main St.; stucco on hollow tile, orna. trim.; following estimating: Milburn Construction Co.; O. P. Woodcock, Lutz Bldg.; George Hessler, St. Johns Ave.; S. S. Jacobs Co., Lutz Bldg.; Arthur F. Perry, Jr., Bisbee Bldg., Neal D. Evans, Adair Bldg.; Walter J. Bryson Construction Co.; Hearn Construction Co.; H. S. Baird; H. H. Raymond Construction Co., W. 14th St., and George Auchter, 1361 Avondale St.; Marsh & Saxonby, Archt., Consolidated Bldg.

Fla., Jacksonville—Jacksonville Electric Garage Co., A. B. Conley, 215 Julia St., erect garage, Beaver and Hogan St.; following estimating: H. S. Baird, 3658 Oak St., J. M. Raymond Construction Co., 1747 Glendale St., Arthur F. Perry, Jr., Bisbee Bldg.; A. L. Clayton, Blum Bldg.; W. T. Hadlow, 32 N. Forsyth St., and George D. Auchter Co., 1361 Avondale St. 4-4

Fla., Miami—City, Welton A. Snow, Mgr., plans \$13,000 improvements to city garage.

Fla., Tampa—J. W. Frazier, Citizens Bk. Bldg., let contract to G. A. Hanson, Inc., for warehouse and service station, S. Franklin and Platt St.; 100 x 100 ft., stucco on masonry with built-up roof; to be occupied by Fiske Tire Co., Inc., Chicopee Falls, Mass.; Frank Dunham, Archt., Wallace S Bldg.

Ga., Atlanta—J. L. McLendon let contract to Griffin Construction Co., 452 Spring St., N. W., for service station, at \$26,000; brick, conc., comp. roof; private plans.

## CONSTRUCTION DEPARTMENT

## Manufacturers Record

Ga., Atlanta—Brockway Motor Corp., Marion A. O'Mara, Pres., Cortland, N. Y., reported, appropriated funds for erection of assembly plant by its subsidiary, Indiana Truck Corp., J. W. Stephenson, Chmn. of Bd., Marion, Ind.; Geo. A. Brockway, Chmn. of Board, advises have no intention of building plant now.

La., Lafayette—Dan Chevrolet Co. let contract to P. Oliver & Son, 114 Bilbo St., Lake Charles, for automobile show room and service building at \$19,700. 1-31

La., New Iberia—Gulf Refining Co. of Louisiana, Pittsburgh, Pa., and New Orleans, La., acquired site, Main and French St.; erect \$10,000 filling station; brick.

La., New Orleans—Capital City Auto Co., Inc., arranged for erecting service, repair and garage building, Charles and Carondelet St.; cost about \$100,000 with equipment; Jones, Roessle & Olschner, Archt., Maison Blanche Bldg.; to be occupied under lease.

Md., Baltimore—Joseph Pistorio, 3427 Mondawmin Ave., erect garage, rear of 2908-2912 Rueckert Ave., to accommodate 14 cars; private plans.

Md., Salsbury—U. C. Wimbrow let contract to Albert Disharoon for storage garage, E. Main St. section; 204 x 212 ft., 2-story front, red brick, conc.

Miss., Vicksburg—Miller Auto Co., Geo. Miller, Pres., let contract to R. B. Howard, 2404 Cherry St., for \$10,000 garage and storage building, Clay St.; 2-story, rein. conc., brick, steel; immediate construction.

Mo., Harrisonville—Davis Chevrolet Co., capital \$25,000, incorporated; Luther Hunt, Clinton; J. L. Prater, Harrisonville.

Mo., Houston—Brown Motor Co., capital \$15,000, incorporated; Arthur Brown.

Mo., Jefferson City—Capital City Oil Co., John Guy Gibson, Mgr., let contract to Louis W. Peters, 4300 S. 38th St., St. Louis, for service station, McCarty and Jefferson St.; work begun; Kennerly & Stegelmeyer, Archts., Title Guaranty Bldg., St. Louis. 11-22-28

Mo., Kansas City—Bertrand M. Hall, Pres., Country Club Laundry, 5026-32 Main St. applied to City Plan Comm. for permission to erect 13 garages on rear lots, 5021 to 5029 Baltimore Ave.

Mo., Owensesville—Crowder & Ruffner Motor Co., capital \$20,000, incorporated; William B. Ruffner, May D. Crowder.

Mo., Springfield—Heer Butler Motor Co. drawing plans for \$30,000 auto salesroom; Hecklenlively Marks, Archts., Lander Bldg. 2-14

Mo., Springfield—Wallis Smith, Smith-Glynn-Smith Bldg., let contract to W. W. Johnson, 301½ College St., for designing and constructing \$10,000 garage; brick, conc., 50x80 ft.

Mo., St. Louis—Heer-Butler Motors, Inc., let contract to S. E. Dobbs, 530 W. Lynn St., for remodeling garage, Olive St. and Baker Arcade; brick, conc., stucco, conc. floors, 2 stories and basement; Hecklenlively & Mark, Archts., 642 Lanberg Bldg. 2-14

Mo., St. Louis—Hudson-Frampton Motor Car Co., 3301 Locust St., erect automobile show room, Gravois St.; 1 story and part basement, rein. conc., brick, 104x33x66 ft., irregular shape; Russel A. Conzelman, Archt., Calumet Bldg.

N. C., Elizabeth City—Stevens Tire Stores, Inc., capital \$20,000, chartered; M. B. Stevens, P. M. Sanderlin, Camden.

N. C. Forest City—Arrow Sales Co., capital \$50,000, incorporated; A. G. Harrelson, Frank Doggett, Rutherfordton.

N. C., Huntersville—Auten Motor Sales, Inc., capital \$50,000, chartered; J. W. Auten.

N. C., Winston-Salem—Clarence T. Leinback, 420 S. Main St., erect \$50,000 garage, N. Main St., bet. First and Second St.; rein. conc., brick, 50x210 ft., 2-story.

Okl., Tulsa—Independent Oil and Gas Co., O. L. Cordell, V.-Pres., acquired Harvey Young Oil Co., E. H. Wiet, Pres., including station, offices, warehouses and other holdings.

S. C., Marion—Jenkins Motor Sales Co. incorporated; G. B. Jenkins, Fayetteville.

Tenn., Knoxville—A. A. Schmid, 3225 Woodhill Pl., and J. J. Galbraith erect \$12,000 garage, 415 W. Main Ave.; brick, 10,792 sq. ft. floor space, 1 story.

Tex., Bay City—Anderson-Rugeley Garage Co. completing plans for addition and remodeling garage; 1-story, brick, hollow tile, stucco, 48x74; Morris & Noonan, Archt., Builders Bldg., San Antonio.

Tex., Beaumont—Andrus Motor Co., John A. Crawford, V.-Pres., 901 Pearl St., let contract to McDaniel Bros. for automobile building, Calder and Forrest St., at \$41,000; 1-31

Tex., Dalhart—Charles Williams, Stude-

brick, steel; to be completed by July 1. 3-21

Tex., Dallas—Worsham Buick Co., J. M. Worsham, Pres., 3709 Gaston St., soon begin erecting \$180,000 automobile building, Cedar Springs and Pearl St.

Tex., Fort Worth—City has low bid from A. H. Smith, 1404 Harrington St., at \$14,690, for municipal garage, near waterworks; will consist of repair shop, 2 storage sheds and oil shed; conc. and steel.

Tex., Fort Worth—W. C. Stripling let contract to Cain & Cain, 809 Moore Bldg., for \$10,000 garage, Second St., bet. Commerce and Calhoun St.; brick, tile, plaster walls, steel sash, comp. roof, conc. floors, 100 x 50 ft., 1-story; W. G. Clarkson, Archt., 610 First Natl. Bank Bldg.

Tex., Franklin—Langford Hiller Motor Co., capital \$15,000, incorporated; T. R. Hiller, C. C. Langford.

Tex., Mission—Syndor Motor Co. let contract to Hidalgo County Lumber Co., for auto salesroom and garage, at \$14,215. 1-24

Tex., San Antonio—Hill Top Garage, Edwin Nieman, drawing plans for filling station and garage, Corpus Christi Rd.; 1-story, brick, tile, conc. steel, 40x150 ft.; Beverly W. Soillman & Son, Archt. and Engr., Alamo Natl. Bk. Bldg.

Tex., Victoria—Houston Oil Co., Houston, acquired site, Main and Rio Grande St., on Hwy. No. 12; erect office building and filling station; to be equipped with large underground tanks for reception of carload shipments.

Tex., Victoria—Texas Oil Co. acquired site Hwy. No. 12; erect filling station.

Va., Blackstone—Claughton Chevrolet Sales Corp., capital \$15,000, incorporated; E. P. Wallace.

Va., Portsmouth—Morse-Parker Motor Supply, Inc., erect \$15,000 auto supply house, High St., near Eppingham St.

## Railways

Missouri—St. Louis Southwestern Ry. Lines, Daniel Upthegrove, Pres., St. Louis, authorized by Interstate Commerce Comm., to purchase \$830,000 stock of 4 short-lines in St. Francis Basin and expand its service in area by constructing 30 mi. of additional trackage; includes Gideon & North Island, owned by Gideon-Anderson Co.; Deering Southwestern, Blytheville-Leachville, and Arkansas Southern.

Mo., St. Louis—Missouri Pacific R. R. Co., L. W. Baldwin, Pres., applied to Interstate Commerce Comm. for authority to issue and sell \$46,392,000 of its 20-year 5½% convertible gold bonds, series A, and to issue from time to time a like amount of common stock for conversion of bonds.

Okl., Oklahoma City—Interests headed by Charles E. Ingersoll, Lafayette Bldg., Philadelphia, Pa., reported, acquired controlling interest in Oklahoma City-Ada-Atoka Ry. Co., involving approx. \$2,200,000.

Tenn., Chattanooga—Coverdale & Colpitts, Consulting Engrs., 52 Wall St., New York City, reported acquired Tennessee & Georgia Ry. Co., H. W. Stanley, Pres.; soon begin rehabilitation.

Texas—Stockholders of Kansas City, Mexico and Orient Ry. of Texas, H. E. Beard, Ch. Engr., Wichita, Kan., authorized increase of capital stock, \$1,000,000 to \$5,000,000, and refund of \$9,000,000 of bonds.

Texas—Gulf, Beaumont and Kansas City Ry. Co., subsidiary of Atchison, Topeka & Santa Fe Ry., W. B. Storey, Pres., 80 E. Jackson St., Chicago, Ill., authorized by Interstate Commerce Comm. to issue \$1,700,000 general mortgage gold bonds, bearing 6% interest; proceeds to apply on indebtedness of \$2,007,699.82 to parent line.

Tex., Nocona—Missouri-Kansas-Texas R. R. Co. of Texas, F. Ringer, Ch. Engr., Dallas, let contract to Gifford-Hill & Co., Inc., Dallas, for reducing eastbound grade on Henrietta division between St. Joe and Nocona, 16 mi. to a virtual 0.8% maximum; involves grading 300,000 cu. yd. of earth, placing 1350 cu. yd. rein. conc. and relocating 6.6 mi. main line and 1.5 mi. State Hwy. No. 6; total cost \$420,000; to be completed July 31.

Tex., Pampa—Clinton & Oklahoma Western R. R., subsidiary of Atchison, Topeka & Santa Fe Ry. Co., G. W. Harris, Ch. Engr., Chicago, Ill., applied to Interstate Commerce Comm. for authority to construct 11 mi. of trackage, Texas-Oklahoma state line to Pampa, Gray County; to be leased to Panhandle & Santa Fe Ry. Co., Amarillo; make connection with Kansas City, Mexico & Orient.

Tex., Pampa—Clinton & Oklahoma Western R. R., Subsidiary of Atchison, Topeka & Santa Fe Ry. Co., G. W. Harris, Ch.

Engr., Chicago, Ill., authorized by Interstate Commerce Comm. to issue a first and refunding mortgage 6% bond for \$650,000 to be delivered to Atchison, Topeka & Santa Fe Ry. at par in satisfaction and payment of certain of applicant's bonds now held by that company.

Tex., Vernon—St. Louis, San Francisco & Texas Ry., T. E. Bliss, Div. Engr., Fort Worth, applied to Interstate Commerce Comm. for permission to build line, Vernon to Seymour, 43 mi.

Virginia—Chesapeake & Ohio Ry. Co., W. J. Harahan, Pres., controlled by O. P. and M. J. Van Sweringen interests, Cleveland, Ohio, authorized by Interstate Commerce Comm. to acquire Pere Marquette Ry. Co. 2-28

West Virginia—Baltimore & Ohio R. R., Daniel Willard, Pres., Baltimore, Md., reported, expend \$500,000 for installing color position light signals on Cumberland division, including Patterson cutoff; work to begin about Apr. 15; materials ordered; H. R. Laughlin, Div. Supt.

West Virginia—Nicholas, Fayette and Greenbrier R. R. Co., subsidiary of Chesapeake & Ohio Ry. Co., Richmond, Va., and New York Central, New York, let following sub-contracts for 28-mi. extension, bet. Swiss and Nallen: A. Keathley, Professional Bldg., Charleston, grading concrete structures, track laying and ballast; Piper & East, Charleston, and to Brown, Murphy & Wright, Princeton, grading and conc. structures; Poston, Brewer & Brewer, Chillicothe, Ohio, grading and conc. structures; A. Guthrie & Co., Swiss, W. Va., and St. Paul, Minn., has general contract. 3-21

## Railway Shops and Terminals

Tex., Big Spring—Texas & Pacific Ry. Co., E. F. Mitchell, Ch. Engr., Dallas, has plans for engine house, machine and repair shops and other units, to cost over \$100,000 with equipment.

## Roads, Streets and Paving

In connection with LAND DEVELOPMENT large sums are expended for roads, streets, paving and sidewalks. Details will be found under that classification.

## Proposed Construction

Ala., Birmingham—City Comm. receives bids Apr. 16 for 19 paving and one sewer project, totalling \$239,965: Paving Eighth Court, South to Fifty-third St.; Fifty-eighth St., etc.; A. J. Hawkins, City Engr.

Ala., Birmingham—City Comm. receives bids Apr. 30 for 12 blocks 2-in. asphalt on 6-in. conc. paving; cost \$62,700; A. J. Hawkins, City Engr.

Ala., Huntsville—State Highway Comm., Woolsey Finnell, Highway Dir., Madison County to Whitesburg; A. J. Earl, Res. Engr.

Ala., Marion—State Highway Comm., Woolsey Finnell, State Highway Dir., Montgomery, plans repairing county and state roads in Perry County, recently damaged by floods; cost about \$60,000.

Ala., Mobile—Mobile County Bd. of Revenue receives bids soon to pave various highways in county; John R. Peavy, Engr.

Ala., Muscle Shoals—City, O. S. Welch, Ch. Engr., probably receive bids latter part of May on 33,000 sq. yd. conc. paving, 24,000 lin. ft. conc. curb and gutter, 51,000 sq. ft. sidewalks, 24,500 cu. yd. excavation; T. J. Evans Engineering Co., Florence, Ala. 3-28

Ala., Thomasville—Town Council plans 14 blocks grading and paving.

Arkansas—State Highway Comm., Dwight H. Blackwood, Highway Commr., Little Rock, received low bids for 19 roads and 16 bridges, totaling \$1,973,321; Arkansas County—grading, draining, gravel surface, and 78-ft. treated timber bridge, State Highway No. 3, Stuttgart-Elm road, Ayres & Graves, Hope, \$23,867; Drew County—14½ mi. grading, draining, gravel surface, Highway No. 35, Monticello-Collins road, Newell Hempstead County—13 mi. gravel surface, Highway No. 29, Hope-Lewisville road, J. W. Gwin, Comer Bldg., Birmingham, Ala., \$28,713; Sebastian County—8 mi. conc., Highway No. 22, Sec. No. 1, Fort Smith-Charleston road, Shultz Construction Co., Fort Smith, \$712,216; Crawford County—5 mi. conc., Highway No. 71, Sec. 15, Mountainburg-Fine Springs road, Porter Construction Co., Tulsa, Okla., \$93,142; Franklin County—9 mi. conc., Highway No. 22, Charles-Paris road, Turk Construction Co., Little Rock, \$181,281.

In Hot Springs County—11½ mi. gravel surface, Highway No. 6, Hot Springs Malmvern road, J. W. Gwin, \$20,695; Calhoun County—4½ mi. grading, draining, gravel surface, Highway No. 4, Harrell-Hampton road, L. A. Lemon, Booneville, \$29,727; Union-Ouachita Counties—15 mi. conc., Highway No. 167, Smackover-Camden road, Hartman-Clark Bros. Co., Peoria, Ill., \$310,005; Perry County—8 mi. gravel surface, Highway No. 10, Ola-Perry road, Nelson Bros. Memphis, Tenn., \$8,922; 9½ mi. gravel surface, Highway No. 10, Ola-Perry road, Cook & Ransom, Ottawa, Kan., and Williamson & Williams, Batesville, \$9,815, each; Boone County—19 mi. gravel, Highway No. 65, Harrison-Omaha road, M. E. Gillioz, Monett, Mo., \$46,011; Marion County—1½ mi. grading, draining, gravel Highway, No. 126, Flippin-Potter road, Miler S. Proctor, Yellville, \$19,958; Lawrence County—6 mi. grading, draining, Highway No. 67, Hoxie-Alicia road, Newell Construction Co., \$32,214.

In Miller County—8 mi. gravel, Highway No. 71, Texarkansas State line road, J. W. Gwin, \$11,613; Jackson County—16 mi. gravel, Highway No. 17, Newport-Tupelo road, F. D. Harvey & Co., Memphis, Tenn., \$24,802; Saline County—3 mi. conc., Highway No. 70, Benton-Hot Springs road, Turk Construction Co., Little Rock, \$9,142; Ouachita County—2½ mi. grading, draining, Highway No. 167, Smackover-Camden road, E. A. Enloe, 1737 Tulane St., Shreveport, La., \$31,604; Carroll County—8 mi. grading, draining, Highway No. 12, Harrison-Eureka Springs road, Cole Bros. & Denniston, Fayetteville, \$66,002; Lawrence County—6½ mi. grading, draining, Highway No. 67, Hoxie-Alicia road, Newell Construction Co., \$27,688; Bridges: Monroe-Lee Counties—798 ft. treated timber bridges, Highway No. 3, Clarendon-Marianna road, L. G. Newsom, Marks, Miss., \$21,912; Jefferson County—90 ft. rein. conc. deck girder bridge, over Caney Bayou, Highway No. 3, Pine Bluff-Free Bridge road, Philpot Construction Co., 116 Chestnut St., Pine Bluff, \$10,500.

In Miller County—2,364 ft. rein. conc. deck girder bridges, Highway No. 67, Fulton-Texarkana road, Fred Lutjohann, Topeka, Kan., \$143,179; Cleburne County—670 ft. treated timber bridge, Highway No. 16, Heber Springs-Edgemont road, L. G. Newsom, \$17,169; Stone County—345 ft. treated timber bridges, Highway No. 66, Mountain View-Timbo road, M. K. Orr, Little Rock, \$22,310; Ouachita County—4,911 ft. rein. conc. and timber bridge, and 163 ft. earth embankment approaches, Highway No. 167, Camden-East road, Brown Abbott Co., Wilson Bldg., Dallas, Tex., \$249,287; Baxter County—60 ft. rein. conc. bridge over Hicke Creek, Highway No. 5, Mountain Home-Norfolk road, Cook & Ransom, Ottawa, Kan., \$5,153; Greene County—1,094 ft. treated timber-struct. steel and rein. conc. bridges, Highway No. 1, Paragould-Corning road, Miller's Garage & Construction Co., St. Louis, \$60,787.

In Mississippi County—251 ft. rein. conc. girder bridges, Highway No. 18, Leachville-Blytheville road, Booz-Boyd & Co., Russellville, Ala., \$38,457; Clay County—458 ft. treated timber approach to St. Francis River Bridge, Highway No. 39, Piggott-Missouri State line, Oscar Kochtitzky, England, Ark., \$12,326; Chicot and Desha Counties—725 ft. treated timber bridges, Highways No. 65 and 165, Lake Village-McGehee road, J. F. Mullins, 4200 Milberg St., Pine Bluff, \$21,055; Benton County—417 ft. rein. conc. girder bridge, Highway No. 107, Gentry-Gravette road, Cook & Ransom, \$23,839; Sharp County—321 ft. rein. conc. bridge, Highway No. 63, Hardy-Williford road, Cook & Ransom, \$34,414; Van Buren County—506 ft. struct. steel and rein. conc. bridges, 443 lin. ft. earth embankment approaches thereto, Highway No. 65, Clinton-north road, Merritt-Short Co., Clewood, \$47,170.

Ark., Benton—City Commrs. received low bids from F. D. Harvey & Co., Memphis, Tenn., \$18,863, for 10,000 sq. yd. plain conc., \$20,430, for rein. conc. paving, Paving Dist. No. 1.

Ark., Fayetteville—Washington County, J. Lona Slaughter, County Judge, plans grade and gravel highway from Benton County line, through Elm Springs, Tonitown and Johnson to Fayetteville; conc. bridge across creek west of Johnson.

Ark., Siloam Springs—City Commrs. received low bid from J. S. Vance & Sons, Parsons, Kan., \$35,466, for 12,710 sq. yd. 6-in. conc. paving, Districts 5 and 6.

Fla., Bradenton—Manatee County Commrs. plan 1½-mi. 18-ft. hard surface road from Range Line road, Samoset to Travertine plant; F. K. Webb, County Engr.

Fla., Palm Beach—City, Barclay H. Warburton, Mayor, plans street improvement. See Financial News Columns.

Fla., West Palm Beach—City A. E. Parker, Mgr., plans extending Flagler Drive, be-

tween Royal Park and Southern Blvd. bridges; H. M. Tschirgi, City Engr.

Ga., Atlanta—Fulton County Bd. of Commrs., Walter Stewart, Chmn., Public Works Committee, plans starting soon on Robert E. Lee Memorial Blvd., portion on Lee St. between McCall's crossing West End and Chattahoochee Ave., East Point, minimum width 60 ft.

Ky., Paducah—State Highway Comm., Frankfort, receives bids Apr. 19 for 64 mi. surfacing Paducah-Mayfield road, McCracken County, Loan Oak to Graves County line; J. S. Eatkins, State Highway Engr.; F. A. Shobe, Dist. Engr., Paducah.

Louisiana—Louisiana Highway Comm., O. K. Allen, Chmn., Baton Rouge, receives bids Apr. 30 to build or gravel 9 roads: East Carroll Parish—2.17 mi. Kilbourne-Gassoway; Washington Parish—6 mi. Sun-Franklin-ton; 6.226 mi. Richardson-Arcola; Caldwell Parish—4.85 mi. Columbia-Chataan; 5.81 mi. mi. Thibodaux-St. Patrick; Beauregard Parish—8 mi. Merryville-Starke; Vermillion Parish—5.766 mi. Abbeville-Intercoastal canal; Ouachita Parish—4 mi. Perryville-Collinston; L. R. Ames, State Highway Engr.

La., Baton Rouge—City Engr. preparing plans to hard surface 5 streets, including Reddy, Evelyn, Gretta Sts.

La., Crowley—Louisiana Highway Comm., O. K. Allen, Chmn., Baton Rouge, receives bids May 7 to pave 18-ft. Old Spanish Trail, between Estherwood and Crowley, Acadia Parish, parallel Southern Pacific tracks; bridge over Bayou Blanc, between 2 towns; replace wooden structure; L. R. Ames, State Highway Engr.

La., Lafayette—Lafayette Parish Police Jury considering widening highway between Lafayette and Duson, to 70 ft.

La., Thibodaux—Louisiana Highway Comm., O. K. Allen, Chmn., Baton Rouge, receives bids Apr. 30 to furnish gravel and shell, and build 11.35 mi. Route 83, Thibodaux-St. Patrick Highway, Lafourche Parish; L. R. Ames, State Highway Engr.

Maryland—State Roads Comm., G. Clinton Uhl, Chmn., Baltimore, receives low bids Apr. 16 for 6 roads: Frederick County—1-mi. conc. highway, from end of Cont. F-112 toward New London, Cont. F-124; Harford County—1-mi. conc., from end of Cont. H-52 toward Van Bibber, Cont. H-70; Anne Arundel County—1-mi. gravel, from Quaker Burying Ground to Galesville, Cont. AA-63; Cecil County—2.9 mi. conc. from Appleton to Fair Hill, Cont. Ce-47; Montgomery County—1.8 mi. conc. shoulders, from Seeks Corner to Four Corners, Cont. M-34-B; Cecil County—3.49 mi. conc. shoulders, Perryville to Principio, Cont. Ce-10-B; L. H. Steuart, Sec.

Maryland—State Roads Comm., G. Clinton Uhl, Chmn., Baltimore, received low bids for 6 roads and 2 bridges: Frederick County—1½ mi. conc., Jefferson-Middletown Rd., M. J. Grove Lime Co., Lime Kiln, Md., \$27,670; Montgomery County—91 mi. conc., from Seventh St. to Forest Glen, H. H. Hirshberger, 3223 Reisterstown Rd., Baltimore, \$20,580; Harford County—2.2 mi. conc. Level-Darlington road, George & Lynch, Dover, Del., \$57,260; Calvert County—2 mi. gravel, Plumb Point road, Southern Maryland Construction Co., 14 E. Lexington St., Baltimore, \$29,593; Kent County—3 mi. conc. shoulders, Chestertown to Fair Lee road, P. D. Phillips Bros., Salsbury, \$9,256; Worcester County—4½ mi. conc. shoulders, Pocomoke to Virginia State Line, Hannan-Burroughs Co., Salisbury, \$15,204; Charles County—single 35-ft. span bridge, between La Platta and Masons Springs, Jarboe & Houghton, Mechanicsville, \$12,528; Frederick County—single 20-ft. span, over Kellers Branch, Buckeystown, M. J. Grove Lime Co.

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Md., Baltimore—City, Bd. of Awards, receives bids Apr. 17 to grade, curb and pave with 9100 sq. yd. cement conc. streets in Cont. No. 509; Nathan L. Smith, Highways Engr.

Md., Baltimore—City, Bd. of Awards, received low bid from P. Reddington & Sons, 2 E. Lexington St., \$14,193, to pave various streets in northeastern section, near Belair road, including Raspe Ave.; Nathan L. Smith, Highways Engr.

Md., Baltimore—City, Bd. of Estimates, considering expending \$31,200 to pave with conc. sections of 9 streets in residential section: Chestnut, Collins Ave., Franklin, Frisby St.; Nathan L. Smith, Highways Engr.

Md., Baltimore—City, Nathan L. Smith, Highways Engr., receives bids soon to pave Gwynn Oak Ave., from Liberty Heights Ave. to western city limits.

Md., Oakland—State Roads Comm., G. Clinton Uhl, Chmn., Baltimore, receives bids Apr. 23 for section of Northwestern turn-

pike, Garrett County, west of Gorman, W. Va.

Miss., Clarksdale—Coahoma County plans about 30 mi. gravel road; Ben Collier, County Engr.

Miss., Pontotoc—State Highway Comm., Jackson, will let contract within 60 or 90 days for conc. slab on 6 mi. Bankhead Highway between Pontotoc and Oxford, near Toccola.

Miss., Poplarville—City considering expend \$100,000 for street paving. See Financial News Columns.

Missouri—Engineers of Missouri State Highway Dept., Jefferson City, accepted plans for farm-to-market road system in Southwest Missouri, totaling about 713.5 mi., costing \$2,033,008: Newton County—10 roads, 100 mi.; McDonald County—8 roads, 101 mi.; Barry County—6 roads, 97½ mi.; Lawrence County—14 roads, 99 mi.; Cedar County—11 roads, 112 mi.; Dade County—11 roads, 104 mi.

Missouri—State Highway Dept., Jefferson City, probably let contract in Apr. for 3 roads: Monroe County—improve Highway No. 24, east of Madison; gravel Highway No. 24, from intersection with Highway No. 63, east of Moberly to Monroe County line; Greene County—pave 3 mi. Highway No. 65, between Greens-Christian County line and Ozark; H. P. Mobberly, Div. Engr., Springfield.

Mo., Cape Girardeau—City Council, James A. Banks, Mayor, considering paving 10 blocks of streets and alleys, including 8 blocks on Lorimier St.; amiesite for street paving; conc. surface for alley.

Mo., Clayton, St. Louis—State Highway Comm., Jefferson City, authorized St. Louis County to build 6 roads, totaling 63 mi.: Taylor road, from Pattonville to bridge at Chain of Rocks; 14 mi. Olive St. road, from Missouri River to Conway road, then to Clayton road and to Link road, via Clayton road; 6 mi. Clayton road, Ellisville to Conway road; Jamestown road, connecting Robbins Mill road with Bellefontaine road; 22 mi. Allenton road, from county limits on Antire road to Watson road, then to City of St. Louis; 5 mi. Union road, from Lemay Ferry road, at Mehlville to Morgan road, St. Louis.

Mo., Clayton, St. Louis—St. Louis County, Roy Jablonsky, Highway Engr., receives bids Apr. 17 to improve Hanley road, Olive St. road south to University City limits; Ripa road from Broadway to Telegraph road.

Mo., Independence—Jackson County lets contract soon for Courtney, Woods Chapel, Grain Valley, Buckner and Sibley roads, costing \$700,000; let contracts before May 1 for work on Spring Branch, old Independence, Blue Springs, Grain Valley and Oak Grove Roads, costing \$400,000.

Mo., Kansas City—City, Matthew S. Murray, Dir. of Public Works, received low bid, Kelly & Welsh, \$10,329, for 10-ft. conc. paving, Intercity roadway, under Intercity viaduct, from Liberty St. to State Line; from Midwest Paving Co., 25th and Summit Sts., \$15,009, for petroleum asphalt paving on conc. base, McGee trafficway, from Twenty-second St. to Pershing road; from Hyman Spitscaufsky, \$9061, to grade Flora Ave., Swope Park to Forty-ninth St.

Mo., Kansas City—City, Matthew S. Murray, Dir. of Public Works, plans resurfacing with 2-in. asphaltic conc. Ninth St., Charlotte to Campbell St.; 8-in. plain conc. surface, Seventy-third St.; pave Grand Ave. and Fifty-seventh St.; grade Sixth St. traffic connection and Seventy-fourth St.

Mo., Kansas City—City, Matthew S. Murray, Dir. of Public Works, received low bid from Gray Paving & Material Co., 1927 Vine St., \$19,849 to repair base, and resurface with 2-in. asphaltic conc., Grand Ave., Ninth to Twelfth; from Midwest Construction Co., \$47,049, between Twelfth and Eighteenth Sts.; from Gray Paving & Material Co., \$12,581, 8-in. conc. pavement, 20-in. asphaltic conc. resurface, Oak St.; P. J. Hughes, Keith & Pen Bldg., \$16,733, 8-in. conc., Fifty-ninth St.; Halpin-Dwyer, \$13,468, Mersington St.; Brosnahan, \$6,050, for Brighton St.

Mo., Kirksville—City, Mayor Ewing, plans paving 3 blocks East Randolph St.

Mo., Linneus—City, A. C. Jones, Mayor, plans expending \$16,000 to gravel streets. See Financial News Columns.

Mo., Springfield—State Highway Dept., Jefferson City, H. P. Mobberly, Div. Engr., probably let contract early in Apr. to pave 3 mi. road from Greene-Christian County line to Ozark.

Mo., St. Louis—City, Bd. of Public Service receives bids soon to grade, and rein. conc. pave Goodfellow St., cost \$34,450; plans alternate type paving, January, Elchelberger.

## CONSTRUCTION DEPARTMENT

## Manufacturers Record

Ridgewood, Kraft, Plateau, Idaho, Hartford, Taylor St.; W. W. Horner, City Engr.

Mo., Trenton—State Highway Dept., Jefferson City, plans widening 10 mi. paving to 18-ft. road, Grundy County, from point 6 mi. southeast of Trenton to Farmersville.

Mo., Trenton—State Highway Dept., Jefferson City, plans 2 mi. 18-ft. conc. Highway No. 65, from Trenton north to township line, Grundy County.

N. C., Durham—City considering opening and grading Jackson St. Dover St. to Underwood Ave.

N. C. Durham—City plans starting about May 1, on street paving: Widen and pave Chapel Hill St., from Chapel Hill road to Duke University campus; pave Englewood Ave., Holloway St., Roxboro and Pine St.

N. C., Franklin—State Highway Comm., Raleigh, plans completing grading Highway No. 28, Macon County, between Franklin and Highlands; J. C. Walker, Dist. Highway Engr.

N. C., Greensboro—Guilford County Engr., C. O. Lowe, will make survey, Pinncroft road extension into State Route 70; D. L. Donnell, County Mgr.

N. C., Spindale—Town receives bids Apr. 16 for street paving.

N. C., Winston-Salem—City, Harry L. Shaner, Commr. of Public Works, received low bids from Atlantic Bitulithic Co., for 4,300 sq. yd. sheet asphalt, and 612 sq. yd. gutters, Twenty-four and One-half St., 1,800d sq. yd. sheet asphalt, and 290 sq. yd. gutters, Highland Ave.; from Powell Paving Co., both Wachovia Bank Bldg., 2,900 sq. yd. sheet asphalt, 385 sq. yd. gutters, Aradalia St.; 1,325 sq. yd. sheet asphalt, 210 sq. yd. gutter, Gregory St. 3-28

Okla., Altus—Jackson County Commrs. plan earth embankment along several miles county highway from Elmer to Humphreys; John Riley, Consit. Engr., supervising work.

Okla., Tulsa—City, Dan Patton, Mayor, plans paving Seminole Place, Elgin to Hartford Ave.; R. K. Teis, City Engr.

Okla., Tulsa—City, Dan Patton, Mayor, plans paving 2 districts, including Sixteenth and Independence St; plans paving Lawton Ave.

S. C., Bamberg—City, B. F. Folk, Clk., receives bids Apr. 16 for 33,930 sq. yd. plain conc. pavement, 8,000 cu. yd. excavation, 7 catch basins, 593 lin. ft. 10 to 18-in. V.C. and R.C. pipe; Tomlinson Engineering Co., 1224 Sumter St., Columbia.

S. C., Charleston—City Council, Joseph C. Barbot, Clk., plans paving Bay St., roadway, from Blake to Cooper; Nunan St., Ashley Ave., to President St.

S. C., Laurens—City plans expending \$40,000 for permanent type pavement on certain streets. See Financial News Column.

Tenn., Alamo—Crockett County plans expending \$750,000 for road building. See Financial News Columns. 4-4

Tenn., Blountsville—Sullivan County Court appropriated \$20,000 to complete highway from Limestone Cove to North Carolina State line.

Tenn., Knoxville—Knox County Commrs., E. D. Jeffries, Supt. of Roads, plans receiving bids for 8.2 m. road work, estimated cost \$45,000; plans improving 96.3 mi. roads.

Tenn., Selmer—McNairy County Commrs. receive bids Apr. 22 for road and bridges: Highway Project No. 3—12 mi. grading, draining, from Leapwood to State Highway No. 5 through Finger; No. 4—bridges on road from Leapwood to State Highway No. 5 and on County Highway No. 1, from point 12 mi. east of Selmer north to Chester County line.

Texas—State Highway Comm., R. S. Sterling, Chmn., Austin, appropriated funds for 2 roads and bridge: Ward County—surface Highway No. 1; G. B. Finley, Div. Engr., Balmorhea; Harrison County—12 mi. widen and resurface Highway No. 8, cost about \$120,000; R. D. Rhodes, Res. Engr.; Presidio County—bridge across Arroyo Alunita, Highway No. 54, east of Marfa; Gibb Gilchrist, State Highway Engr.; G. G. Wickline, Bridge Engr.

Texas—State Highway Comm., R. S. Sterling, Chmn., Austin, receives bids Apr. 23 and 24 for 10 roads: Hale County—30 mi. conc. Highway No. 30, Hale Center through Plainview to Swisher County line; Free-stone County—17½ mi. grading, draining, Highway No. 82, Winkler County line to Monahans; Dimmit County—11 mi. gravel surface, Highway No. 55, Zavalla County line, through Carrizo Springs; Harris County—10½ mi. maintenance topping, Highway No. 6, South Houston to Webster; Arkansas County—8½ mi. grading, draining, Highway No. 57, Rockport to Copano Bay; Panola County—3½ mi. grading, draining, Highway

No. 8, near Harrison County line; Gibb Gilchrist, State Highway Engr.

Texas—State Highway Comm., R. S. Sterling, Chmn., Austin, appropriated funds for 9 roads and 2 bridges: Smith County—3.05 mi. rebuild base and asphalt surface Highway No. 64; Comal County—9.6 mi. widen base and improve shoulders Highway No. 2; Matagorda County—9.606 mi. grading, draining Highway No. 71; Brazoria County—8 mi. grading, draining Highway No. 58; Wharton County—13.69 mi. grading, draining Highway No. 71; Uvalde County—17,570 mi. 1-in. Uvalde rock asphalt surface on gravel and macad. base Highway No. 3; Travis County—.559 mi. grading, draining, asphalt surface Highway No. 2; Starr County—15.129 mi. grading Highway No. 2; Gregg County—grading, draining Highway No. 15; also treated timber bridge across Hawkins Creek; Lamar and Delta Counties—3000-ft. bridge and approaches across Sulphur River Valley; Gibb Gilchrist, State Highway Engr.

Texas—State Highway Comm., R. S. Sterling, Chmn., Austin, appropriated funds for 5 roads and bridge: Matagorda County—1.058 mi. grading, bridges, Highway No. 58; cost about \$31,000; Travis County—2373 ft. base repairs and a asphalt surface treatment, Highway; Waller County—improve gravel surface Austin-Houston road, Highway No. 6, estimated cost \$19,675; Smith County—5.75 mi. rebuild base, surface with asphalt, Highway No. 37; Hunt County—4.12 mi. highway improvement; Fannin County—creosoted timber pile bridge, across channel of Sulphur River; Six 17-ft. panels, 24-ft. roadway, earth approaches; Gibb Gilchrist, State Highway Engr.; G. G. Wickline, Bridge Engr.

Tex., Alice—Jim Wells County, R. R. Mullen, County Judge, plans expending \$160,000 for roads in Road Dist. No. 1, including fort-to-fort highway northward from Alice to Live Oak County line. See Financial News Columns. 3-7

Tex., Beaumont—City, J. W. Anderson, Mgr., plans expending \$1,000,000 for paving. See Financial News Columns.

Tex., Commerce—City, C. Kelly, Mayor, plans 12 blocks permanent paving; cost \$35,000; M. Ramsey, Engr., Greenville.

Tex., Cotulla—La Salle County, G. A. Wehausen, Judge, plans grading, draining, surfacing, East-West Highway across county, and high type surfacing Highway No. 2, San Antonio—Laredo Highway across County; Joe J. Estill, Res. Engr.

Tex., Decatur—Wise County plans highway from Bridgeport to Boyd, converge with new Northwest Highway out of Fort Worth.

Tex., Denton—City, B. W. McKenzie, Mayor, plans expending \$37,000 for street improvement. See Financial News Columns. 3-14

Tex., Fort Worth—State Highway Comm., R. S. Sterling, Chmn., Austin, probably receive bids within 30 days for State Highway No. 2, Burleson road, Tarrant County; Gibb Gilchrist, State Highway Engr.

Tex., Galveston—City Commrs. considering expending \$200,000 for permanent street improvement. See Financial News Columns.

Tex., Graham—City, E. D. Eddleman, Mayor, plans letting contract soon to pave Fourth St., connecting with main Jacksboro Highway to east, and Breckenridge to west; P. Tackett, City Engr. 2-28

Tex., Houston—City considering bit. surface treatments in Pine Crest Court and Burke additions; J. C. McVea, City Engr.

Tex., Jacksboro—State Highway Comm., R. S. Sterling, Chmn., Austin, plans survey of Northwest Route through Jack County; M. C. Welbourn, Res. State Highway Engr. Fort Worth.

Tex., Kaufman—Kaufman County plans expending \$100,000 for road building in Pre-cinat No. 1. See Financial News Columns. 3-28

Tex., Llano—State Highway Comm., Joe Gresham, Maintenance Supt., Austin, plans straightening Highway No. 29 east and west through county, at Colorado River Bridge near Bluffston.

Tex., Llano—City plans receiving bids additional paving, and sewer plant; Montgomery & Ward Consit. Engrs., Wichita Falls.

Tex., Lockhart—City, Wm. Schofield, Mayor, plans surfacing streets; sold bonds.

Tex., Palestine—City, J. Duncan, Mayor, plans widening Avenue A., between Old Town and New Town; pave North Sycamore St.

Tex., Perryton—Ochiltree County considering road building. See Financial News Columns.

Tex., San Antonio—City, Fred Fries, Clk., receives bids Apr. 15 to improve Convent St., Soledad to Augusta St.; I Ewig, City Engr.

Tex., Sulphur Springs—Hopkins County plans expending \$1,500,000 for roads, see Financial News Columns.

Tex., Terrell—City Comm. plans resurfacing Moore Ave. in business section paving dist. from Rockwell Ave. to Southern Pacific Ry. and Texas & Pacific line to Nach Ave.

Tex., Wharton—Wharton County, John Norris, Judge, plans 18 mi. grading, draining, Highway No. 71, El Campo to Colorado County line; J. M. Nagle, Res. Engr.

Va., Petersburg—City, R. T. Wilson, Mayor, considering laying curbs, gutters. See Financial News Columns.

Va., Winchester—Common Council considering expending \$50,000 to improve certain streets during spring and summer.

West Virginia—State Road Comm., E. B. Carskadon, Sec., Charleston, lets contracts Apr. 30 for 16 roads, costing about \$2,825,000: Tucker County—13.2 mi. conc.; Randolph County—21.8 mi. stone base; Pocahontas County—22.8 mi. stone base; Mingo, Wyoming and McDowell Counties—22.1 mi. stone surface, State Route No. 8; from Justice, Mingo County, to Roderfield, McDowell County; Fayette County—5.17 mi. widening U. S. Route 19-21, between Fayetteville to Beckwith; Nicholas County—7.7 mi. bit. macad. from Twin Churches to Calvin; Summers County—4.2 mi. bit. macad. Hilldale to Bellepoint; Preston County—6.5 mi. conc. from Tunnelton to Fellowsville; Grant and Mineral Counties—9 mi. bit. macad. Northwestern Turnpike; Kanawha County—rebuild 3 mi. U. S. Highway No. 60, Charleston to St. Albans; Monroe County—3 mi. grading, State Route 81; Logan County—6 mi. stone surfacing, Route 10, between Logansport and Huntington; eliminate grade crossing; Wayne County—11 mi. stone or gravel surface, Route 75, Kenova to Lavalette; Wetzel County—complete grading 5 mi. Route No. 8, New Martinsville to Hundred; Marion County—relocate mi. from Cadillac to Country club, U. S. Highway No. 19; pave 1.6 mi. Route No. 73; Hampshire Mineral Counties—complete grading Route 54, Romney to Alaska; Pendleton County—grading 3.6 mi. Route 53, near Oak Flat.

W. Va., Charleston—City, Mayor Wertz, plans widening and repaving Washington St., Capitol to Elizabeth St.; repaved between Michigan Ave. and Kanawha City Bridge; widen and repave from Capitol to Dickinson; H. L. Campbell, City Engr.

W. Va., Charleston—Kanawha County Court plans improving 8 roads in Union Dist.: Bowen road; Humphreys Lane; Casdorph road; Big Tyler Mountain road; Kanawha Two Mile road; Wolf Pen Branch road; Woodwards branch road extension: Martins branch road; Lock Six to Dunbar road, via Aarons Creek; total cost \$61,500.

W. Va., Fairmont—Marion County Court, Lee N. Satterfield, Clk., receives bids May 6 to widen and conc. pave 4 mi. Fairmont and Morgantown road, State Route No. 73, from corporate limits of Fairmont to end of present brick pavement.

W. Va., Huntington—Bd. of Park Commrs., A. R. Hunt, Sec., receives bids Apr. 23 to grade, curb and pave Thirteenth, Twelfth St. and Boulevard Ave.

W. Va., McMechen—City, Oscar Wilson, Mayor, considering widening roadway, South Marshall St.

W. Va., Wheeling—City, preliminary plans to improve one-way streets on gravel Hill.

#### Contracts Awarded

Ala., Birmingham—City Comm. let contracts, \$42,550 to widen and pave Seventh Ave. south, Third Ave. extension, repave Second Ave., and pave several smaller streets: Westco Co.; Dunn Construction Co., Inc., Lincoln Life Bldg.; Morgan-Hill Paving Co., Woodward Bldg.; A. J. Hawkins, City Engr.

Fla., Leesburg—State Road Dept., Tallahassee, let contract to Manly Construction Co., Leesburg, about \$7000, to pave approaches to Helena Run Bridge on Branch of State Road No. 2, from Leesburg, through Groveland, Lake County.

Ga., Waycross—Broadbent Construction Co. has contract for base, and Southern Clay Products Co., Chattanooga, Tenn., for brick paving on 1.8 mi. Waycross-Homerville Highway.

La., Natchitoches—City, O. F. Himel, Clk., let contract to Allen Campbell, Winnfield, La., \$5,543, for 30,796 sq. yd. sidewalks, on 9 streets, including Caspary, Behan, Washington; Charles D. Evans, Consit. Engr. 3-21

La., Shreveport—City Commrs. let contracts, totaling \$11,948, to pave and widen various streets, avenue and alleys: Shreveport Paving Co.; R. O. Marks; both Shreveport.

Md., Baltimore—City, Bd. of Awards, let contract to Arundel Contracting Co., Kneickerbocker Bldg., \$23,401, for 8800 sq. yd. conc. paving, Cont. 504; Nathan L. Smith, Highways Engr. 3-14

Miss., Ashland—Benton County Bd. of Supvrs. let contract to Mike Harvey, Oakland, for 6½ mi. gravel surface highway, from point north of Tippah River to Ripley. 3-14

Miss., Canton—Madison County Bd. of Supvrs. let contract to J. W. Clark, Jackson, \$28,757, for 4 mi. conc. Flora to Pocahontas road, and conc. bridges. 3-28

Miss., Decatur—Newton County Bd. of Supvrs. let contract to J. A. and H. C. Pigford, Russellville, \$193,532, for 25 mi. grading and conc. and steel bridge over Chunky River, U. S. Highway No. 30, Scott County line to Lauderdale County line. 3-14

Miss., Holly Springs—City, Mayor and Bd. of Aldermen, let contract to Rowman & Ricard, Oklahoma City, \$13,500, to pave with conc. Maury Ave., College Ave., and street near square. 3-14

Miss., Vicksburg—Warren County Bd. of Supvrs. let contract to B. H. Rea, Yokena, \$1.60 per cu. yd. for 2 mi. gravel road, Redbone to Wayside School. 3-28

Mo., Galena—W. A. Ross Construction Co., 25th and Summit Sts., Kansas City, has contract for 1.3 mi. Highway No. 44, east from Galena, Stone County. 3-28

N. C., Conover—Town, John A. Isenhour, Mayor, let contract to George R. Martin, Salsbury, N. C., for 5,000 sq. yd. conc. paving, 4,250 lin. ft. curb and gutter, 2,000 sq. yd. sidewalks, storm drainage, etc. Spoon & Lewis, Consit. Engrs., Jefferson Bldg., Greensboro. 3-28

Okl., Boise City—City let contract to Stanton & Wallace, Leavenworth, Kansas, \$26,911, for grading and 6000 sq. yd. conc. paving, Court Square. 3-28

Okl., Enid—City let contracts totaling \$42,469 to improve streets in Districts 213, 214, 216 and 217; Hyde Construction Co. and E. W. Baker Co., both Enid. 3-28

Okl., Oklahoma City—Oklahoma County let contract to M. A. Swatek & Co., 519½ W. Main St., \$25,382 to gravel 10 to 12 mi. 18-ft. May Ave. road. 3-28

Tex., Coldspring—State Highway Comm., R. S. Sterling, Chmn., Austin, let contract to Russ Mitchell, Inc., 710 Petroleum Bldg., Houston, \$283,891, for 13.480 mi. conc., State Highway No. 35, San Jacinto County, from Polk County line to Liberty County line. 3-28

Tex., Fort Worth—City, E. O. Carr, Mgr., let contracts totalling \$82,900 to pave 10 streets, including Davis Ave., Lexington St.; to Thurber Construction Co., Fort Worth Natl. Bk. Bldg., General Construction Co., West Texas Construction Co., Cotton Exch. Bldg. 3-28

Tex., Merkel—City let contract to General Construction Co., 414 Capps Bldg., Fort Worth, \$59,783, for conc. paving. 3-28

Tex., Stephenville—City, H. Clark, Mayor, let contract to Thurber Construction Co., 1811 Fort Worth National Bank Bldg., Fort Worth, \$208,000, for 70,000 sq. yd. brick on 8-in. waterbound macad. paving, with curb, gutter, walks, water works, sewer. 3-14

Tex., Terrell—City Comm. let contract to Uvalde Paving Co., Santa Fe Bldg., Dallas, \$26,615, to pave Lawrence Ave., First to Seventh, and Delphine St. to Grove, then to interurban station. 3-28

Tex., Weslaco—City, D. E. Kirgan, Mayor, let contract to Brown & Root, Austin, \$12,000, to asphalt top 5 blocks streets; Ben T. Sanders, Engr. 3-28

Virginia—State Highway Comm., H. G. Shirley, Commr., Richmond, let contract for 3 roads and pile driving work: Scott County—macad. paving, Route 106, F. K. Rich & Co., Princeton, W. Va., alternate \$43,316; Gilbert Construction Co., Fairview, W. Va., regular \$43,791; 4 mi. macad., Route 106, south of Big Stone Gap to Scott County line, Hugh Williams, Big Stone Gap, \$65,872; macad. paving, Route 10, near Clinchport, F. K. Rich, alternate \$63,398; Lipscomb-Lambert Co., L. C. Bldg., Bluefield, W. Va., regular, \$67,067; Princess Anne County, pile driving, Route 500, Carpenter & Petrie, Citizens Bk. Bldg., Norfolk, \$6,906. 3-21

Va., South Norfolk, Norfolk—Hudson & Scruggs have contract, \$70,000 to \$75,000 to pave centers of streets between Virginia Electric & Power Co.'s. tracks in city; 9-ft. strip on Holly, Chesapeake Ave., Twenty-second and D St. 3-21

## Sewer Construction

**Sewer construction in LAND DEVELOPMENT** projects involves the expenditure of large sums of money. Under that classification details of these improvements are reported.

Ala., Birmingham—See Roads, Streets, Paving.

Ala., Guntersville—E. J. Kirkpatrick Construction Co., Florence, has contract at \$60,000 for vit. clay sanitary sewers.

Ala., Montgomery—City install sanitary sewers on Norman Bridge Rd. from Fairview Ave. to Ponce de Leon Ave., and on Ponce de Leon Ave. from Norman Bridge Rd. to Mastin St.; may soon call for bids.

Fla., Palm Beach—City voted \$100,000 bonds for interceptor sewer. 3-14

Fla., Pensacola—City extend sewer mains to East Hill section; Frank E. Jarrett, City Engr.

Ga., Atlanta—See Water Works.

Ky., Louisville—Commr. of Sewerage, Woolsey M. Caye, Technical Engr., approved project to confine Beargrass Creek with conc. channel 40 ft. wide with retaining walls from Kentucky St. to Eastern Parkway in Castlewood; distance of 1 mile, cost \$500,000, will protect 14,000 acres; will probably complete plans and call for bids May 1; Jefferson County engineers plan dredging channel of creek from Eastern Parkway to Newburg Rd. upon completion of conc. channel by city.

Ky., Owensboro—City probably call for bids May 1 for sewer construction; cost \$90,000. 11-25

La., Independence—City having plans and specifications prepared by E. G. Freiler, Engr., Hammond, La., and will soon call for bids for sanitary sewer system; cost \$50,000. 2-28

La., New Orleans—Following contractors estimating on extension to drainage station No. 1, in connection with sewer improvements, bids opened May 1; Doullut & Ewin, Inc., Queen & Crescent Bldg.; Hampton Reynolds, Maritime Bldg.; A. W. Barton, 4405 Hamilton St.; H. N. Moody, 815 Perdido St.; H. Pratt Farnsworth, Canal Bk. Bldg., all New Orleans, and J. B. McCrary Co., Atlanta, Ga.; for Miro St. Sewer sub-main: A. P. Boh & Co., S39 Perdido St.; John B. Mooney, 402 Balter Bldg.; Vernon Bryan, 210 N. Anthony St., all New Orleans; J. B. McCrary Co., Atlanta, Ga.; Virginia Engineering Co., 322 28th St., Newport News, Va.; Blackmer & Post Pipe Co., Boatmen Bk. Bldg., St. Louis, Mo.; for Edgewood-Gentilly main sewer: Doullut & Ewin, Inc., H. N. Moody; John Reiss, N. O. Bank Bldg.; A. P. Boh & Co., Vernon Bryan, all of New Orleans; J. B. McCrary Co., Atlanta, Ga.; Virginia Engineering Co., Newport News, Va.; for laying 48-in. c. i. sewer: H. N. Moody, John Reiss, A. P. Boh & Co., J. B. Mooney, all New Orleans; J. B. McCrary Co., Atlanta, Ga.; Virginia Engineering Co., Newport News, Va. 3-14

La., New Orleans—Sewerage and Water Bd. receives bids at office of Sec., 526 Carondelet St., until May 31 for following, Contr. No. 104-D: furnishing motors, switchboards and accessories for drainage system and Contr. 203-D: lined and covered drainage canal and pipe lines in N. Prieur St.

Md., Baltimore—Bd. of Estimates authorized construction of sewers, cost \$119,000, preliminary to new paving; sanitary sewers and storm drains will be installed on Glenmore Ave., between Sefton and Elmores Aves.; vicinity of Frankfort and Greenhill Aves.; south of Lake Montebello from Herring Run to Hillen Rd.; Annapolis Ave. from Manokin St. to Gwynns Falls and vicinity of Rosedale and Piedmont Sts. and Glenmore Ave. between Belair Rd. and Sefton Ave.; Milton J. Ruark, Ch. Bureau of Sewers.

Md., Greensboro—Town Comms., receives bids April 22 for constructing 3000 ft. of 8-in. to 12-in. storm water drains. See Want Section—Bids asked.

Mo., Eldon—City, Dr. G. D. Walker, Mayor, plans sewage disposal plant; J. W. Shikles & Co., Consit. Engr., 708 N. Y. Life Bldg., Kansas City.

N. C., Charlotte—W. M. Piatt, Consit. Engr., Durham, submitted estimates to City Comms. for relieving flooded conditions of Irwin Creek and Sugaw Creek outfall sewers; cost \$210,000.

N. C., Lumberton—Town plans \$65,000 water and sewer extensions; may vote on bonds.

Okla., Blair—Western Construction Co., First Natl. Bk. Bldg., Oklahoma City, has

contract for conc. sewers, and water works.

Okla., Duke—City, reported, plans sanitary sewer system.

Tenn., Knoxville—City having surveys made for trunk line sewer extending from Depot Ave. almost to north city limits and laterals to sewer North Knoxville beyond Bluff St., Emoriland, Arlington and Whittle Spring sections; cost \$650,000.

Tenn., Memphis—City soon call for bids on \$95,000 sanitary sewers in Highland Heights.

Tenn., Nashville—Walter J. Bryson Paving Co., Cotton States Bldg., has contract for clay pipe sanitary sewers; Buford Smith, 707 Gallatin Rd., for sewer pipe in Alley No. 1218; C. E. Reesch, 1207 Seventh Ave., S., for clay pipe sewer in Alley No. 1202; W. J. Bryson Paving Co., clay pipe sanitary sewer in Alley No. 1217 and clay pipe sewer in Pilcher Ave.

Tex., Colorado—City, L. A. Costin, Mgr., plans extension of sewer system; Frank Du Bose, Engr.

Tex., Commerce—City plans \$40,000 improvements to sewerage system; M. Ramsey, Engr., Greenville. 3-14

Tex., Houston—City, J. C. McVea, Engr., preparing estimates for storm sewer system to drain Montrose and on Harold, Yoakum, Hawthorne to Harold.

Tex., Houston—See Fertilizer Plants.

Tex., Llano—See Roads, Streets, Paving.

Tex., Port Arthur—D. Warfield, Beaumont, has contract for sewers in Lakeview subdivision for C. O. Dunn Realty Co., Adams Bldg.

Tex., San Antonio—Jay Depuy, reported, low bidder for pump house, 1 story and basement; brick and rein. conc.; tanks, rein. conc. walls, cast iron pipe for sewage disposal plant; Hawley & Freese, Engrs., Frost Natl. Bank Bldg. 3-7

Va., Petersburg—City may vote on bonds for improving sewers, and power. See Financial News Columns.

## Telephone Systems

Arkansas—Following applied to Federal Radio for permission to establish radio broadcasting stations: Travis Y. Oliver, Eldorado, Ark.; Savannah Broadcasting Co., Savannah, Ga.; Arthur Brock, Lexington, Ky.; Noel Waller, Dresden, Tenn.

Ky., Covington—S. L. B. Wilson, Inc., L. B. Wilson, purchased equipment for broadcasting station; 5000 watt transmitter and other equipment to cost more than \$100,000.

Missouri—Cape Girardeau Bell Telephone Co., C. W. Bouton, Gen. Mgr., reported, applied to Missouri Public Service Comm., Jefferson City, for permission to acquire 23 telephone exchanges and connecting long distance lines in Southwest Missouri, from Southwestern Bell Telephone Co., involving approx. \$1,325,000.

Oklahoma—Continental Telephone Co. issuing 1500 shares 7% cumulative preferred stock, par value \$100, through Municipal Utility Investment Co., 203 Mutual Bk. Bldg., Kansas City, Mo.; company incorporated in Oklahoma, owns and operates telephone properties in South Central portion of state within radius of 125 mi. of Oklahoma City; principal communities served are in vicinity of Ardmore, Durant and McAlester; proceeds to retire \$150,000 of the 1-year 6% outstanding bonds and to provide for working capital, extensions and improvements in property.

Tenn., Summitsville—J. C. Jackson and associates acquired Summitsville Home Telephone Co.

Tex., Brownsville—Rio Grande Telephone Co. announce purchase of Brownsville, Harlingen and Point Isabel telephone exchanges from Southwestern Bell Telephone Co.; effective immediately.

Tex., Fort Worth—Southwestern Bell Telephone Co., B. D. Dallas, erect \$42,000 addition to telephone building, 11th and Throckmorton St.; brick conc.

Tex., Waco—Southwestern Bell Telephone Co., Dallas, advises regarding acquisition of Texas Telephone Co., continue Waco as operating headquarters; acquired company control exchanges at Bolton, Moody, Clifton, Ennis, Hillsboro, Itasca, Lorena, Marlin, Mart McGregor, Meridian, Moody, Oglesby, Taylor, Temple, Waco, Walnut Springs, and West; consolidate 2 plants in East Waco, cable relief in congested areas, necessitating removal of poles on Elm St. from River to Turner St., place 15,000 duct ft. of conduit on approx. ½ mi. of underground subway; replace storage batteries at central office, replace emergency gas engine, and install larger ringing machine and generator set for charging batteries; making building arrangements for long line repeater equipment in connection with underground toll cable to be installed; plans rest room, etc.;

replace motor equipment; rebuild outside plant at Belton during present year, cost approx. \$15,000; expend approx. \$20,000 at Ennis for improving outside plant, remove poles from Main St. of business section; install new type switchboard and rebuild outside plant in Marlin; plans complete to finish and rebuild outside plant at Mart started in 1928; replace entire central office equipment at McGregor and possibly erect building, also rebuild entire outside plant; plan rebuilding rural lines out of Oglesby during present year; contemplate extensive repairs and replacements to outside plant for Taylor; begin rebuilding exchange at West within next 60 days, material received; building repeater station at Waco to house equipment necessary for underground cable terminating there. 3-21

**Virginia—Chesapeake & Potomac Telephone Co. of Virginia**, plans to acquire control of properties of York and Warwick Telephone Co., in York and Warwick Counties.

### Textile Mills

**Ala., Decatur**—Alabama Hosiery Mills, Inc., reported, let contract to J. W. Chambers Lumber Co., at \$27,000, for constructing building, 140x100 ft. 3-28

**Ga., Macon**—William Carter Co., Needham, Mass., reported, leased site, erect building for cotton underwear manufacture.

**Ga., Sparta**—B. T. Comer, Pres., Washington Mfg. Co., Tennille, reported, plans acquiring old Montour Mill property; will rebuild.

**La., Shreveport**—Baker-Cammack Textile Corp., capital \$20,000, incorporated; H. C. Walker, First Natl. Bank Bldg.; R. E. Cammack, both Greensboro, N. C.

**Md., Frederick**—Union Mfg. Co., opens bids April 15 for ladies' full fashioned hosiery mill on Water St.; 100 ft. sq.; 1-story; brick and steel; with windows completely around it; 80 ft. bridge will connect new and old building; install 12 full fashioned knitting machines; equipment purchased will cost \$100,000; specifications prepared by Lockwood Green Engineers, Inc., 100 E. 42nd St., New York; local contractors estimating are: Lloyd C. Culler, Herman C. Mock and Hahn and Betson. 3-14

**N. C., Charlotte**—Ellis Silk Hosiery Co., Morris Ellis, Pres., 419 Arch St., Philadelphia, Pa., acquired building, 512 S. Graham St.; establish full fashioned hosiery plant; install 32 knitting machines.

**N. C., Charlotte**—Fleetwood Silk Hosiery Mill, Lockwood Green Engineers, Inc., Engrs., 100 E. 42nd St., New York. T. C. Thompson and Bros., 609 N. Smith St., Gen. Contr., for textile mill and boiler house, let following contracts: Rein. steel, Kalmar Steel Co., Candler Bldg., Atlanta, Ga.; struc. steel, McClintic-Marshall Co., Charlotte; steel sash, W. L. McDonald, Builders Bldg., Charlotte and Pittsburgh, Pa.; plumbing, Waldrop Heating and Plumbing Co., Rock Hill, S. C.; misc. iron and steel, Soule-Hoffman Co., Charlotte; Kalamein doors and frames, Construction Specialties Co., Charlotte; common brick, Georgia-Carolina Brick Co., S. F. C. Bldg., Augusta, Ga. 4-4

**N. C., Greensboro**—Walter Kidde & Co., Inc., Jefferson Standard Bldg., Greensboro, Gen. Contr., for mill for Mock-Judson-Voehringer, let following subcontracts: Hauling, James F. Brown, Sykes Ave.; partition tile, Borden Brick & Tile Co.; crushed stone and sand, Collins Granite Co., Tate St.; common brick, Hood Brick Co., Arcade Bldg.; painting, John Luppe; oak flooring and lumber, Oettinger Lumber Co., S. Elm St.; cellized oak flooring blocks, G. W. Rayle, Box 537; steel, wire mesh, caging, Ferodeck roof, struc. steel and metallic floor hardener, Truscon Steel Co.; waterproofing Western Waterproofing Co., both Jefferson Bldg.; misc. iron, J. D. Wilkins, W. Lee St.; brixment, C. B. Clegg, Fulton St.; excavation, C. R. Sutton, Walker Ave., all of Greensboro; chimney M. W. Kellogg Co., 225 Broadway, N. Y.; plastering, S. Mirabella & Son, 419 Dickson Bldg., Norfolk, Va.; face brick, West Virginia Brick Co., 126 Builders Bldg., Charlotte; roofing, Budd Piper Roofing Co., Durham. 4-3

**N. C., Statesville**—Superior Yarn Mills, Inc., subsidiary corporation of Duke Power Co., Charlotte, reported, acquired Long Island Cotton Mills property on Catawba River, including 565 acres.

**S. C., Columbia**—Palmetto Rayon Products Co., incorporated; H. F. Yarborough, H. E. Yarborough, Jr.

**S. C., Greenville**—Rosland Rayon Corp., W. E. Rosenthal, Pres., Cheney Bldg., Madison Ave., at 34 St., New York, with plant at Paterson, N. J., reported, has site near here for plant to produce approx. 10,000 lbs. of rayon yarn daily in first unit; re-

ported, J. E. Sirrine, Greenville, may be in charge of erection. Mr. Rosenthal wires: "Rosland rayon promotion undecided; no detailed information."

**S. C., Greenville**—Union-Buffalo Mills Co., Union, reported, acquired Nuckassee Mfg. Co.; manufacturers underwear.

**S. C., Rock Hill**—Lund Co., Inc., installing 4 wide Jacquard looms, later plan installing approximately 24 additional Jacquard looms; will be transferred from Massachusetts plant where new looms will be installed.

**S. C., Rock Hill**—Rock Hill Hosiery Co., Hope St., constructs dye plant; install additional machinery in knitting plant. 1-24

**S. C., Spartanburg**—Fairforest Finishing Co., offering \$600,000 6½% serial gold notes through A. M. Law & Co., Spartanburg, and associates; company, \$400,000 common stock of which is owned by Arcadia Mills, Mills Mill and Reeves Bros., New York City, has been established to finish goods of these mills; plant costing \$850,000 is being built about 6 miles from here; capacity 80,000,000 yds. of goods annually; James Brown, Gen. Mgr. 4-4

**Tenn., Chattanooga**—Davenport Hosiery Mills, install H. S. L. machines as part of expansion program. 3-27

**Tenn., Shelbyville**—Gallivan Construction Co., Gallivan Bldg., Greenville, S. C., has contract for 360 x 162 ft. 1 story addition for Shelbyville Mills; McClintic-Marshall Co., Charlotte, N. C., and Pittsburgh, Pa., contract for steel; William Bayley Co., Springfield, O., for steel sash; American Cast Iron Pipe Co., Birmingham, Ala., for cast iron columns; J. W. Zuber, Atlanta Tr. Co. Bldg., Atlanta, Ga., for lumber. 1-24

### Water Works

**Details of water works improvements in connection with the many LAND DEVELOPMENT operations will be found under that classification.**

**Ga., Atlanta**—City constructs storm sewer and extend water main to supply plant of B. F. Goodrich Rubber Co.

**La., Monroe**—Burns Construction Co., Chicago, Ill., reported low bidder at \$40,000 for earthen dam project at Bayou Siard, including dam, installation of conduits, valve structures and intakes; Burns & McDonnell Engineering Co., Engrs., Interstate Bldg., Kansas City, Mo.

**La., New Orleans**—Sewerage and Water Bd., let contract H. J. Farnsworth, Canal Bldg., for constructing addition to pressed brick structure No. 6; T. H. Brockman, Hibernia Bldg., for lined and covered canal in Nashville Ave., Fontainbleau Drive. 1-31

**Md., La Plata**—W. C. Spratt, Fredericksburg, Va., has contract for laying water mains and erecting steel tank for water work; Virginia Well and Machinery Co., Richmond, Va., for sinking well; H. Holland Hawkins, Sec., LaPlatte Water Supply Co. 1-31

**Miss., Lambert**—City plans installing water works system.

**N. C., Lumberton**—See Sewer Construction.

**Okl., Blair**—See Sewer Construction.

**Okl., Chickasha**—City defeated \$25,000 water works bonds. 3-28

**Okl., Duke**—City, reported, has preliminary plans for \$18,000 soft water supply.

**Okl., Erick**—Town, extend water and sewers, cost \$125,000; 985 ft. of 2-in., 3190 ft. of 4-in., 6185 ft. of 6-in., 30305 ft. 8-in., e.i. water pipe; 19517 ft. of 8-in. clay sewers; cone, settling tank, 100,000 gal.; air lift to reservoir and centrifugal pumps to force to tower and up in elevated tank, 375 ft. head; install 2 centrifugal pumps and air compressor; date opening bids not set; Clarence A. Wood, Engr., 611 Perrine Bldg., Oklahoma City, Okla.; contractors will purchase machinery. 4-4

**Tex., Austin**—Griscom-Russell Co., 285 Madison Ave., New York, has contract for 3 feed water heaters in connection with water works improvements; Birmingham Boiler & Engineering Co., 3001 Seventh Ave N., Birmingham, Ala., for struc. steel; San Antonio Machine Supply Co., 325 N. Centre St., San Antonio, for portable air compressor; James Contracting Co., 805 Trunk St., Dallas, for laying 3400 ft. of 24-in. water line from city plant to Barton Creek Rd. across Colorado River; United States Cast Iron Pipe Foundry Co., Burlington, N. J., and Birmingham, Ala., for pipe. 2-28

**Tex., Beaumont**—City rejected bids and will soon call for new bids for additional piping to siphon water under Brakes Bayou and for extension of water works pump house; J. W. Anderson, City Mgr. 4-4

**Tex., Corpus Christi**—Neuces County Water Imp. Dist. No. 1, E. E. Ludewig, Pres., 715 Leopard St., will expend \$60,000 for water works improvements; lay 5 mile 6-in. and 2½ mile of 4-in. precaulked pipe, McWane Cast Iron Pipe Co., Birmingham, Ala., and 5 miles of 3-in. screw pipe for gas; will open bids in about 90 days for 5 miles of 4-in. water and 5 miles of 3-in. gas line; install booster plant for water; J. C. Norby, Engr., 1001 Ayres St. See Want Section—Miscellaneous.

**Tex., Del Rio**—City, John Y. Long, Mayor, opens bids April 16 for installing water mains, valves, and fire hydrants and 2 water tanks; W. E. Simpson Co., Engrs., Natl. Bank of Commerce Bldg.

**Tex., Eastland**—City let contract to Chicago Bridge & Iron Works, Dallas, Tex., and Chicago, Ill., for steel and iron standpipe of 668,000 gal. capacity, also for tearing down and rebuilding present standpipe; Central Foundry Co., Praetorian Bldg., Dallas, for furnishing 5000 ft. of 10-in., 8-in. and 6-in. water mains.

**Tex., Nixon**—Nixon Water Works Co., Terrell Bartlett, Calcasien Bldg., San Antonio; Owner, acquired Nixon Ice & Water Co.'s water plant; plan improvements.

**Tex., Pampa**—D. L. McDonald, Amarillo Bldg., Amarillo, has contract for enlargement of water system.

**Tex., Port Arthur**—D. Warfield, Beaumont, has contract for water distributing system.

**Tex., Port Neches**—City let contract to Layne-Texas Co., 6931 Harrisburg Rd., Houston, for water wells with total output of 170 gals. per minute.

**Tex., Weimar**—E. E. Erwin, Columbus, constructing water works; Chattanooga Boiler and Tank Co., 1011 E. Main St., Chattanooga, Tenn., has contract for 75,000 gal. tank and tower. 3-28

**Va., Dahlgren**—Virginia Engineering Co., First Natl. Bank Bldg., Newport News, low bidder at \$24,300 for water supply improvements at Naval Proving Grounds for Bureau of Yards and Docks, Washington.

**W. Va., Bluefield**—West Virginia Water Service Co., 27 William St., New York, plans \$175,000 improvements to water works, including construction of storage reservoir; impound 125,000,000 gals. of water and filtration plant with daily capacity 2,000,000 gals. 9-20

### Woodworking Plants

**Miss., Natchez**—Vehicle Woodstock Co. ordered machinery and having material placed on ground for plant to manufacture wagon and implement woods, furniture stock, etc., utilizing hickory, oak, sweet pecan and ash; company to be incorporated with L. R. Neil, Pres., Winnfield, La.; begin operations May 1.

**Miss., Pickens**—Alvin Wunderlich Stave Co. completed arrangements to lease 10-acre tract on which to operate modern stave and cooperage plant.

**Va., Pulaski**—Dimension Veneer Co. moving machinery and equipment from High Point, N. C., and installing it as unit of Pulaski Veneer and Virginia Panel plant.

### FIRE DAMAGE

**Ala., Birmingham**—Building owned by John A. Sellers, Montgomery, loss \$37,000; building of T. B. Hall, Montgomery, loss \$23,000; A. L. Smith's building; loss \$15,000.

**Ala., Bridgeport**—R. A. McFarlane's residence.

**Ark., Jonesboro**—Johnson Berger & Co.'s furniture store; loss \$30,000.

**Fla., Monticello**—Protestant Episcopal Church rectory, Rev. R. L. Carlton, Rector.

**Ga., Atlanta**—Building occupied by Perfect Belt Mfg. Co., 225½ Mitchell St., S. W.

**Ga., Augusta**—J. N. Epps Furniture Co.'s store, Cohen's Dry Goods Co.'s store, both in Silver Bldg., 1200 block Broad St.

**Ga., Cordele**—Tannery and leather manufacturing plant of S. M. Watson & Co.

**Ky., Liberty**—Commercial Bank.

**Ky., Louisville**—Indian Hills Development Co.'s dwelling; loss \$12,000.

**Md., Baltimore**—Montebello Mansion, Hillen Rd., owned by Miss M. Carey Thomas; leased to Thos. G. Cunningham.

**Miss., Rich**—Stores of H. C. Rainey and W. T. Townsend; W. H. Harris' residence.

**Mo., Kansas City**—Riverside telephone ex-

change, 565 Arlington St., Southwestern Bell Telephone Co.; loss \$50,000.

Mo., St. Louis—Roadhouse occupied by Theodore Farrell, owned by Frank A. Ruf Estate; loss \$10,000.

Mo., Sturgeon—George A. Laxton & Son's store, building owned by Mrs. C. B. Davidson, Moberly; loss \$10,000.

N. C., Bayboro—Cowell Mfg. Co.'s barrel plant; loss \$18,000.

N. C., Reidsville—Edna Cotton Mills.

N. C., Scotts Hill—Hardwood Lumber Co.'s plant; station of Atlantic Coast Line R. R.; G. B. Elliott, Pres., 207 S. Third St., Wilmington.

N. C., Wilmington—Mill buildings and kiln and engine room at plant of Wylie Cooperage Co.

Tenn., Chattanooga—E. L. Kenyon's residence, Brainerd Golf and Country Club Place; loss about \$21,000.

Tenn., Nashville—F. C. Monroe's dwelling.

3707 Meadowbrook Ave., occupied by J. L. McDaniel; loss \$6500.

Texas., Dallas—Rogers Lumber & Mfg. Co.'s plant, 425 and 427 Second Ave.; loss \$100.

Tex., Houston—City fertilizer plant in North Side Sewage Disposal plant property, 4600 block Clinton Ave.; loss \$40,000.

Tex., Port Arthur—Port Arthur Furniture Co.'s store.

Tex., Terrell—Dr. E. T. Hardy's residence; loss \$10,000.

Tex., Wichita Falls—Grand Leader Clothing store and Puritan Lunch Room, 622 Seventh St.

Va., Richmond—Max E. Ruehrmund's residence, Three-Choct Rd.; loss \$50,000.

Va., Suffolk—Bradshaw Hardware Co.'s store, building owned by Mrs. H. W. Campbell; loss \$10,000.

W. Va., Clarksburg—Willow Beach Club owned by John Raikes; loss \$30,000.

Inc., 143 Spring St., N. W., at \$11,953; elect. work, Sam Donelson, 101 Marietta St., at \$15,546; R. H. Hunt Co., Archt., James Bldg., Chattanooga, Tenn.; Burge & Stevens, Ass. Archts., 101 Marietta Bldg., Atlanta. 3-28

Ga., Atlanta—Hebrew Benevolent Congregation receives bids Apr. 22 for Sunday school, Peachtree and Spring Sts.; synagogue later; rein. conc., struct. steel, stucco and hollow tile, 2 stories and basement; main auditorium 305x100 ft.; total cost \$450,000; Hentz, Adler & Shutze, Archts., Candler Bldg.; Robt. S. Fiske, Consit. Engr., Healey Bldg.; following contractors estimating: Grahn Construction Co.; Geo. A. Clayton Co.; J. S. McCauley Co.; Griffin Construction Co.; Barge-Thompson Co.; Pittman Construction Co.; Brazell & Miller; Shelverton Construction Co.; A. J. Krebs. 2-22

Ga., Cordele—Northern Heights Baptist Church, Rev. E. A. Price, Pastor, erect \$12,000 bldg., Eighth Ave. and Third St.; placing material on ground.

La., Shreveport—First Church of Christ, Scientist, plans bldg., Atkins Ave. and Centenary Blvd., Gladstone sub-division.

Miss., Moorhead—Baptist Church, Dr. J. H. Hook, Pastor, receives bids Apr. 11 at office J. M. Spain, Archt., Millsaps Bldg., Jackson, for brick veneer church and Sunday school bldg.; \$15,000, rein. conc. foundation, wood floors, sheet metal work, composition roof. 1-17

Mo., Independence—Church of Jesus Christ of Latter Day Saints soon start work on bldg. on Temple Lot.

Mo., Kansas City—St. Andrews P. E. Church, John D. Warren, Chmn., Bldg. Comm., 7435 Jefferson St., having plans drawn by Edw. Buehler Deik, Archt., Meyer Blvd. and Ward Pkwy., for \$300,000 bldg., Meyer Blvd. and Wornall Rd. 12-13

Mo., Kansas City—Roanoke Presbyterian Church, E. F. Reyburn, Chmn., Bd. of Trustees, considers erecting \$100,000 bldg., 42nd St. near Wyoming St.

Mo., St. Louis—Grand Ave. M. E. Church, South, Rev. L. R. Jenkins, Postor, 3613 Dover Place, considers erecting \$100,000 church and Sunday school, Grace and Fairview Aves.; brick and stone.

S. C., Fort Mill—First Baptist Church, Rev. O. L. Orr, Pastor, erect \$40,000 bldg. to replace burned structure; 20 classrooms, auditorium seat 500; Mr. Clemmer, Contr., Lowell, N. C.

Tenn., Fountain City, Knoxville—Fountain City Presbyterian Church, D. F. Fleming, Chmn., Bldg. Comm., soon start work on \$15,000 bldg.; plans drawn.

Tenn., Memphis—St. Johns P. E. Church, Rev. A. Loaring Clark, Pastor, considers erecting 1-story and balcony brick and stone addition.

Tex., Dallas—Greenville Avenue Christian Church, Dr. Ben M. Edwards, Pastor, plans \$50,000 superstructure; basement in.

Tex., Gallatin—Roman Catholic Church erect brick and conc. bldg., N. Water St. Address The Pastor.

Tex., Houston—Maurice J. Sullivan, Archt., Second Natl. Bk. Bldg., drawing plans for church, school and priest house for new Roman Catholic parish to be established on Rosedale St. near Ennis St.; \$180,000; Roman type, brick. 2-21

Tex., San Antonio—Theo Avenue Baptist Church, Rev. C. Cowan, Pastor, erect frame addition; Will N. Noonan Co., Archt., Bldrs. Exch. Bldg.

Va., Abingdon—Sinking Spring Presbyterian Church, Rev. J. G. Patton, Jr., Pastor, has low bid at \$27,250 from Morris & Co., Pulaski, for Sunday school; D. R. Beeson, Archt., Johnson City, Tenn. 2-21

Va., Norfolk—First Lutheran Church opens bids Apr. 15 at office Calrow, Browe & Flitz-Ribbon, Archts., Royster Bldg., for Collegiate Gothic type bldg., Colley Ave. near Maury Place; Ashlar stone, cut stone trim, auditorium about 150x138 ft., accommodate 600, slate roof; Sunday school accomodate about 500. 2-21

Va., Richmond—Centenary Methodist Church, Neil D. Sills, Chmn., Bd. of Stewards, plans remodeling church and erecting parish house; repair organ.

## Cities and County

Md., Baltimore—Park Board appropriated \$15,000 for repairs to municipal stadium.

Miss., Jackson—Hinds County votes in May on courthouse bonds; probably 7 stories and basement with 2 top floors for jail, 100 x 78 ft., elevators; jail accomodate about 150; Claude H. Lindsley, Archt., Lamar Life Bldg. 2-21

N. C., Greensboro—Guilford County Bd. of Comrs., having plans drawn by Harry

## BUILDING NEWS

### BUILDINGS PROPOSED

#### Association and Fraternal

Ga., Atlanta—Atlanta Railroad Y. M. C. A., W. W. Watts, Chmn., Bldg. Comm., plans to raise \$100,000 to purchase and remodel Gate City Hotel for quarters to replace burned structure. 3-14

Miss., Greenville—Nelson Street Branch Colored Y. M. C. A. erect face brick bldg.; stone trim, 2 stories.

Miss., Shelby—Ancient Free and Accepted Masons having plans drawn by J. M. Spain, Archt., Millsaps Bldg., Jackson, for \$25,000 temple; rein. conc., brick, stone trim, 2 stories, wood floors, built-up comp. roof. 2-14

Mo., Jefferson City—Jefferson Lodge No. 43, A. F. & A. M., remodel temple. 4-4

N. C., High Point—Salvation Army; R. K. Stewart & Son, 153 S. Main St., lately noted as contrs. for \$30,000 semi-fireproof brick bldg., advises contract not let and new plans will be drawn.

Okla., Hobart—American Legion erect \$20,000 community hall brick, 2 stories; E. H. Eads & Co., Archts., Chickasha.

Okla., Shawnee—Shawnee Masonic Temple Assn., U. S. Hart, Pres., Bd. of Trustees, erect \$400,000 temple; inaugurate \$250,000 campaign; stores, offices and lodge rooms.

Tenn., Memphis—Memphis Lodge No. 286, Progressive Order of the West, A. D. Bearman, Chmn., Bldg. Comm., erect \$40,000 Jewish social center bldg., North Memphis; fireproof, rein. conc., brick and steel, 3 stories, 48 x 80-ft. gymnasium, etc., on first floor; kitchen, showers, etc., on second; 48 x 64-ft. auditorium to seat 600, 4 lodge rooms, dressing rooms, etc., on third; E. L. Harrison, Archt.-Engr.; plans completed.

#### Bank and Office

Ark., Hot Springs National Park—B. M. Jackson, care Southern Securities Co., 111 W. Second St., and James A. Rector, both Little Rock, interested in Medical Arts bldg., Central Ave.; 14 stories, 57-ft front; remainder of 175-ft. frontage to be occupied by stadium type theatre and several stores; \$1,000,000; John P. Almand, Archt., Boyle Bldg., Little Rock; work probably start about 30 days.

Ga., Atlanta—Central Public Service Corp., D. C. McClure, Operating Vice-Pres., leased bldg., Peachtree and Harris Sts.; expend \$100,000 to remodel for central offices.

Ga., Atlanta—Buckeye Cotton Oil Co., B. J. Gant, Supt., erect face brick veneer office bldg., University Ave.; 1 story and basement, 45x32 ft., asbestos shingle roof; Augustus E. Constantine, Archt., Candler Bldg.; bids Apr. 8.

Ga., Saint Simons Island—Sea Island Co. erect Spanish type administration bldg., Sea Island Beach; bell tower.

Ky., Louisville—United States Realty & Improvement Co., 111 Broadway, New York City, promoting plans for 20-story Physicians and Dentists Bldg.; about 200,000 sq. ft. floor space; bldg. to contain emergency hospital, laboratories, auditorium, clubrooms, vacuum and aspirator systems, elec. call system, incinerator; garage space; Holabird & Root, Archts., Chicago, Ill.; Dr. Fred H. Wyatt, Med. Arts Bldg., Dallas, Tex., interested.

#### Churches

Ala., Anniston—Northside Baptist Church, 2310 CalElroy Ave., Rev. W. A. Broome, Pastor, raise \$10,000 to erect church, 22nd St. and Gurnee Ave.

Ark., Cotter—Methodist Church, Seth Mathews, Chmn., Bldg. Comm., considers remodeling church or erecting new structure.

Ark., McGehee—Christian Church considers erecting 1-story brick building, Orange St. Address The Pastor.

Fla., St. Petersburg—United Liberal Church has low bid for \$35,000 bldg. from W. D. Berry, 12th Ave., St. Petersburg; Smith & Walkeer, Archts., 80 Boylston St., Boston, Mass.

Ga., Atlanta—First Baptist Church, Col. B. L. Bugg, Chmn., Bldg. Comm., Henry Brady Bldg., has low bid at \$335,722 from Griffin Construction Co., 452 Spring St., N. W., for church and Sunday school; low bid for heating, Seckinger Bros., Forsyth Bldg., at \$41,025; plumbing bid, Stephenson Co.,

Md., Baltimore—Park Board appropriated \$15,000 for repairs to municipal stadium.

Miss., Jackson—Hinds County votes in May on courthouse bonds; probably 7 stories and basement with 2 top floors for jail, 100 x 78 ft., elevators; jail accomodate about 150; Claude H. Lindsley, Archt., Lamar Life Bldg. 2-21

N. C., Greensboro—Guilford County Bd. of Comrs., having plans drawn by Harry

## CONSTRUCTION DEPARTMENT

Barton, Archt., for addition to county home for aged and infirm; County, also enlarge central convict camp and enlarge jail. 3-14

N. C., Winson-Salem—**Forsyth County Bd.** of Comrns. plans convict barracks and workhouse for women on county farm site; probably use convict labor.

Okla., Bartlesville—City, Eva Sanderson, City Clk., plans to remodel city hall; \$60,000; probably vote on bonds.

S. C., Laurens—City votes May 8 on \$30,000 municipal bldg. bonds.

Tenn., Knoxville—Knox County, Sam O. Houston, County Judge, remodel sheriff's residence for female prison and hospital.

Tex., Beaumont—City votes May 4 on \$5,175,000 bonds, including \$200,000 for fire dept., \$15,000 for police dept., and \$25,000 for cooling system and improvements to city auditorium. Address City Council.

Tex., New Braunfels—Comal County remodel and erect addition to natural stone courthouse; conc. frame; new heating and wiring systems; Richard Vander Straten, Archt., Travis Bldg., San Antonio.

Tex., San Angelo—City Council erect \$38,000 fire station; bonds approved.

Tex., Waxahachie—Ellis County Comrns. Court considers erecting jail; red brick, white stone trim, 3 stories, about 40x50 ft., accommodate 52, hospital ward, \$50,000; plans submitted by Southern Prison Co., Slaughter Bldg., Dallas.

Va., Suffolk—City Council ready for bids to remodel municipal building.

W. Va., Princeton—Mercer County votes May 7 on \$400,000 bonds for courthouse and jail instead of \$600,000 as lately intended. 3-21

## Dwellings

Ala., Lafayette—N. A. Wheeler erect face brick veneer residence; 1 story, 7 rooms, 2 baths, wood and tile floors; Ye Planry, Inc., Archt., 1713½ Live Oak St., Dallas, Tex.; plans complete.

Ark., Paris—Chas. Wahl, Jr., erect \$25,000 residence; brick and tile, 2 stories and basement, 36 x 60 ft., oak floors, tile roof, steam heat; Bassham & Wheeler, Archts., Kennedy Bldg., Fort Smith; drawing plans.

D. C., Washington—North Washington Realty Co., E. Brook Lee, Pres., Silver Spring, Md., erect 2 dwellings and garages, Kalmia Rd., N. W.; brick, 2½ stories; H. W. Cutler, Archt., 1800 E St., N. W.

D. C., Washington—J. A. Jameson Co. has permit for 16 brick buildings, 415-45 Jefferson St., N. W.; 2 stories; \$80,000.

D. C., Washington—Cooley Bros., Vermont Bldg., have permit for 5 dwellings, 2226-34 Thirty-sixth St., N. W.; brick, 2 stories; \$25,000.

D. C., Washington—C. H. Gaskins, 5913 Georgia Ave., N. W., has permit for 2 dwellings, 620-24 Oglethorpe St.; brick and tile, 2 stories; \$16,000.

D. C., Washington—Jas. P. Maher has permit for \$25,000 residence, 1601 Juniper St., N. W.; brick, tile and stone, 2 stories.

D. C., Washington—S. M. Williams has permit for 4 dwellings, 5110-16 Kansas Ave.; brick, 2 stories; \$24,000.

D. C., Washington—W. O. & N. T. Embrey, 406 Rittenhouse St., N. E., have permit for 3 dwellings, 5614-18 New Hampshire Ave., N. E.; brick, 2 stories; \$12,000.

D. C., Washington—E. H. Young Enterprises have permit for brick dwellings, 258-64 Sixteenth St., S. E.; 2 stories; \$30,000.

Fla., Coral Gables, Miami—Renaut Holding Co., erect \$30,000 dwelling, 729 N. Greenway; conc. block and stucco.

Fla., Lake Worth—John M. Demarest, 9 Via Parigi, erect residence, Hypoluxo Island; Howard Major, Archt., 10 Via Parigi, both Palm Beach.

Fla., Miami Beach—Owen J. McMahon erect \$19,000 residence and garage, Pinetree Drive and 30th St.; conc. block, 2 stories, 35x45 ft., tile and wood floors, tile roof; Lee L. Wade, Archt., 2314 Ponce de Leon Blvd., Miami.

Fla., Miami Beach—L. T. Cushman, New York, erect \$30,000 residence and garage, Hibiscus Isle; conc. block, 2 stories; Weed & Virrck, Archts., Miami; plans about May 1; bids in invitation.

Fla., Miami Beach—Weed & Virrck, Archts., 328 N. E. Second Ave., Miami, drawing plans for \$20,000 to \$25,000 dweling, Biscayne Waterway and 45th St.; conc. block, 2 stories, tile and wood floors, tile roof.

Fla., Palm Beach—H. Benedict erect residence; drawing plans.

## CONSTRUCTION DEPARTMENT

## Manufacturers Record

Fla., Palm Beach—Mr. Johnson erect residence; Treanor & Fatio, Archts., Phipps Plaza.

Fla., South Jacksonville, Jacksonville—Norman C. Edwards, Hendricks Ave., erect 4 bungalows, Del Mar; 5 rooms; \$16,000.

Fla., South Jacksonville, Jacksonville—B. N. Inman, 236 Sorrento St., erect 2 dwellings and apartment; \$33,000.

Fla., St. Petersburg—Mrs. Bessie E. Messner erect \$10,000 residence and garage, 535 Seventeenth Ave., N. E.; frame, 2 stories, 37x46 ft., 9 rooms.

Ga., Macon—Andrew Lyndon, 322 Georgia Ave., erect residence, Stanislaus Circle; brick, 2 stories and basement, hardwood and tile floors, comp. shingle roof; Claude W. Shelverton, Archt., Grand Bldg.

Ga., Macon—Dr. J. C. Anderson, Georgia Casualty Bldg., erect brick residence; 2 stories and basement, hardwood floors, tile baths, comp. roof; W. Elliott Dunwody, Archt., 460 Broadway.

Ga., Saint Simons Island—C. I. Shannon, Arrott Bldg., Pittsburgh, Pa., plans residence, 18th St. and Ocean Beach, Sea Island Beach.

Ga., Saint Simons Island—C. F. Holdship, Peoples Bldg., Pittsburgh, Pa., plans residence, Sea Island Beach.

Ga., Saint Simons Island—B. F. Jones, Jr., care Jones & Laughlin Steel Corp., Pittsburgh, Pa., plans winter residence, Sea Island Beach.

Ky., Louisville—T. Noonan Ryan, Sec., Whayne Co., 316 S. Fifth St., let contract to Otis & Bruce, Inc., Starks Bldg., to rebuild residence lately noted burned at \$10,000 loss. 3-21

La., New Orleans—Chris Gamble receiving bids for alterations and additions to residence, 6803 West End Blvd.; Theo. L. Perrier, Archt., Maritime Bldg.; following contractors estimating: J. A. Haase, Jr., 916 Union St.; L. J. Woodworth, Hibernia Bank Bldg.; Otis W. Sharp, 144 Carondelet St.

La., New Orleans—S. C. Braselman, 360 Audubon St., considers erecting residence, Metro Club Gardens, in Fall.

La., New Orleans—Dr. Jos. P. Wahl receives bids until about Apr. 10 for alterations and additions to residence, 236 Audubon Blvd.; Jones, Roessle & Olschner, Archts., Maitland Blanche Bldg.

Md., Baltimore—Jos. S. Small, 6032 Falls Rd., erect 10 brick dwellings, 3100 block Crittenton Place; 2 stories; \$25,000.

Md., Baltimore—Albert Stark, 4426 Pall Mall Ave., erect 8 dwellings, 5300 Block Cordelia Ave.; brick, 2 stories; \$20,000.

Md., Baltimore—J. E. Greiner, Lexington Bldg., having plans drawn by Theo. Wells Pietusch, Archt., American Bldg., for \$50,000 residence, Gulford; 60 x 35, 2½ stories, stone, slate roof, gas heat, hot water; bids about May 1.

Md., Baltimore—W. M. Beury, Candler Bldg., erect residence, Taplow Rd. near St. Albans Way, Homeland; stone, 2½ stories; T. Worth Jamison, Jr., Archt., 12 E. Pleasant St.; plans ready about Apr. 25 and bids about May 10.

Md., Baltimore—Dr. J. Bordley, Jr., 810 Cathedral St., erect \$35,000 residence, Charlotte Place, after plans by Mottu & White, Archts., 527 N. Charles St.; stone, 2½ stories, slate roof, gas heat, hot water; 12-20

Md., Brooklandville—Fredk. Thomas, Archt., 726 E. 33rd St., Baltimore, drawing plans for \$25,000 dwelling, Green Spring Valley Rd.

Miss., Indianola—A. B. Weeks considers rebuilding burned residence; \$10,000.

Mo., Clayton, St. Louis—J. P. Fleming, 4400 Gibson Ave., erect brick, stone and stucco residence, Moorlands; 2 stories and basement, 78 x 72 ft., hardwood floors, tile bath, slate roof; Marcel Bouleault, Archt., Ambassador Bldg., plans complete.

Mo., Kansas City—E. A. Clarkin, 2320 Benton St., erect \$15,000 residence, 440 W. 57th St.

Mo., St. Louis—Edw. Adam, Overland, erect 2 brick dwellings, Welsberg No. 2; 33 x 38 ft.; \$13,000.

Mo., St. Louis—F. A. Scheperle, 5330 Loughborough St., erect 4 brick dwellings, 3965-71 Federer Place, 3938 Wown St. and 5940 Marwinette Sts.; 2 stories, various sizes; \$14,000.

Mo., St. Louis—Koehler Investment Co., 4310 Grace St., erect 3 brick dwellings, 591-31-35 Marwinette St.; 2 stories, 25 x 30 ft., comp. roofs; \$10,000.

Mo., St. Louis—E. V. Cowdry, 7542 Byron place, erect \$12,000 residence, Moorlands Park; brick, 41 x 28 ft.

Mo., St. Louis—Mary Helmerich, 3309 Holliday St., erect \$11,000 brick residence, Hillcrest; 33 x 40 ft.

N. C., Kinston—G. Rountree Crisp, 201 W. Washington Ave., opens bids Apr. 20 for bungalow; 1 story, 40x67 ft., oak floors, asphalt asbestos roof, conc. and brick foundation, \$10,000; furnishings, equipment, etc., \$5,000; Ye Planry, Inc., Archt., 1713½ Live Oak St., Dallas, Tex. Address Owner. See Want Section—Building Material and Equipment. 4-4

N. C., Winson-Salem—W. C. Loman, 1247 N. Liberty St., plans \$15,000 residence and garage, Shady Lane; brick veneer, 2 stories, 10 rooms.

Okla., Oklahoma City—W. B. Chamlee, care Ford Motor Co., 900 W. Main St., erect duplex, W. 30th St.

Okla., Oklahoma City—H. C. Crump, care Ford Motor Co., 900 W. Main St., plans 2 brick bungalows, W. 30th St.

Okla., Tulsa—Roop & Walters erect 2 dwellings, 1539 S. Atlanta Ave. and 2204 S. Terwilliger Blvd.; \$20,000.

S. C., Aiken—Mrs. Florence V. V. Lindsey, Montclair, N. J., erect winter residence.

S. C., Aiken—Miss Marion Pellew erect residence, York St. and Bernard Rd., in Summer.

S. C., Charleston—Francis Thorne, 101 E. 72nd St., Broker, New York, purchased Ashley Barony on Ashley River; rebuild residence.

Tenn., Chattanooga—Quintus Standifer erect \$10,500 residence, Tinker St.; frame, 1 story.

Tenn., Knoxville—John Beretta, 2116 W. Clinch Ave., erect \$12,000 residence, Cherokee Blvd., Sequoyah Hills; brick, stucco, conc. foundation, 2 stories.

Tenn., Knoxville—H. E. Rogers, 900 Jackson St., erect 12-room duplex, E. Glenwood Ave.; Mr. Rogers also has permit for several additional buildings.

Tenn., Memphis—Mrs. D. H. Anthony, 2299 Union Ave., erect \$30,000 residence, Chickasaw Gardens; brick veneer, 2 stories and basement, oak floors, tile baths, tile roof, steam heat; Geo. Mahan, Jr., Archt., Amer. Bk. Bldg.

Tenn., Nashville—John F. Thompson, 1502 Holly St., erect \$10,000 residence, Valley Vista Rd.; brick veneer, 6 rooms.

Tenn., Nashville—W. C. Weaver, Murfreesboro Rd., erect cypress siding and limestone residence; 2 stories and basement, 79x38 ft.

Tex., Dallas—B. R. Parks, 5412 Swiss St., and B. R. Parks, Jr., 5536 Belmont St., erect 27 duplexes, 5700 and 5800 blocks, Hoskins St., Annie E. Johnson addition, East Dallas; \$4500 each.

Tex., Del Rio—Hal Hamilton erect frame residence; 1 story, metal lath and stucco, hardwood floors, clay tile roof, hot water heat; Richard Vander Straten, Archt., Travis Bldg., San Antonio.

Tex., Houston—J. R. Ellis erect \$12,000 residence and garage, 2411 Southmore St.; Riverside Terrace; brick veneer, 8 rooms.

Tex., Fort Worth—Willing W. Ryan, 2425 College St., erect brick veneer dwelling, 1036 Morningside Drive, and frame dwelling, 1109 Marion St.; \$10,000.

Tex., Marshall—Lansing Irvine erect \$13,000 residence; brick, 8 rooms.

Tex., Mercedes—H. Hartman erect \$12,000 Colonial residence; brick veneer, 1 story, 74 x 40 ft., 6 rooms, hardwood floors, tile roof, conc. foundation; W. R. Varner, Archt., Harlingen; bids in.

Tex., San Antonio—J. M. Prosper, care Robt. B. Kelly, Archt., Milam Bldg., erect building Woodlawn and Main Sts.; 1-story 60x126 ft., brick, stucco, rein. conc.; bids in April 12.

Tex., San Antonio—Dr. Gustave Pagenstach, 112 W. Commerce St., erect frame and stucco addition to residence; Phelps & DeWees, Archts., Gunter Bldg.

Va., Big Stone Gap—Jas. Sturgill rebuild residence, bet. Big Stone Gap and East Stone Gap, lately noted burned at \$15,000 loss.

W. Va., Clarksburg—Geo. D. Curtin, care Pardee & Curtin Lumber Co., Golf Bldg., plans \$90,000 residence, Golf Plaza.

## Government and State

Ala., Anniston—War Dept., Washington, D. C., appropriated \$13,000 for mess halls, Camp McClellan. Address Constructing Quartermaster, Camp McClellan.

D. C., Washington—Supreme Court Bldg. Coms., having preliminary plans drawn by Cass Gilbert, Archt., 244 Madison Ave., New

York, for Supreme Court bldg., E. Capitol St., Maryland Ave., First and Second Sts.; architects' report to be submitted to Congress for study in considering appropriation.

D. C., Washington—Government plans \$7,500,000 House Office Bldg., addition; Allied Architects of Washington, Inc., probable architects; appropriation available; David Lynn Architect of the Capitol.

Ga., Atlanta—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, D. C., receives bids Apr. 29 for site for post office; to contain about 105,000 sq. ft.; information from Postmaster E. K. Large, Atlanta.

Ky., Lancaster—Additional contractors estimating on remodeling post office, bids Apr. 16 by Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, D. C.; English Construction Co., 1211 H St., N. W., Washington, D. C., and 15 W. 91st St., New York; Thos. W. Cissel, 1121 W. Union Blvd., Bethlehem, Pa.; S. S. S. Lumber Co., Bastin Lumber Co., both Lancaster; L. W. Hardin Richmond, Ky.; Harrison County Lumber Co., Cynthiana, Ky.; Geo. Hoskins Lumber Co., 611 E. Third St., Lexington, Ky.; G. E. Tillman, Centralia, Ill.; Algernon Blair, 11 S. Lawrence St., Montgomery, Ala.; Universal Construction Co., Fort Wayne, Ind.; Stephens & Muncey, Berea, Ky.

Tex., Dallas—Additional contractors estimating on post office, bids Apr. 30 by Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, D. C.; English Construction Co., 15 N. 91st St., New York; N. P. Severin Co., 242 W. Adams St., Chicago, Ill.; L. E. Meyers Co., Allen Bldg., Dallas, Jas. T. Taylor, First Natl. Bldg., Fort Worth, Tex.

Va., Lexington—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, D. C., opens bids May 3 for changes in money order and registry div., post office; drawings from Custodian at site or from office Supvg. Archt.

West Virginia—State Bd. of Control, Jas. B. Lakin, Pres., Charleston, erect horse and dairy barn, State Industrial Home for Colored Girls.

### Hospitals, Sanitariums, Etc.

D. C., Washington—Children's Hospital, Miss M. Gibson, Supt., 13th and W Sts., N. W., having plans drawn by Wyeth & Sullivan, Archts., Hill Bldg., for \$50,000 brick 2-story convalescent bldg., Conduit Rd., N. W.

Fla., Lake Wales—Lake Wales Hospital Assn., L. H. Kramer, Pres., selected F. J. Kennard & Son, Tampa, as architects for \$40,000 hospital; 1-story, 18 rooms.

Ga., Atlanta—United States Veterans Bureau, L. H. Tripp, Ch. Constr. Div., Arlington Bldg., Washington, D. C., reported, probably call for bids in May for \$600,000 hospital to replace U. S. Veterans Hospital, Peachtree St.; 200 beds.

La., Bastrop—City votes May 14 on \$65,000 hospital bonds. Address City Council.

La., New Orleans—Charity Hospital has low bid at \$35,429 from Gervais F. Favrot, Balter Bldg., for 14-room addition to Vincent Memorial Home for Infectious Diseases; Favrot & Livaudais, Ltd., Archts., Hibernia Bldg.

La., New Orleans—Presbyterian Hospital, Rev. J. C. Barr, Pres., have plans ready about 60 days for \$250,000 children's pavilion, 5 stories, 50 x 160 ft., pile foundation, tile, Baronne St.; rein. conc., brick, stone trim, terrazzo and wood floors, struct. steel and iron work, built-up comp. roof, 2 elect. passenger elevators; Rathbone DeBuys, Archt., Hibernia Bldg.

Miss., Greenwood—City Council and Leflore County Bd. of Comms., each issue \$30,000 bonds for addition to Kings Daughters Hospital; brick, 3 stories and basement, 39x78 ft., rein. conc. foundation, wood and tile floors, struct. steel and iron work, built-up comp. roof; R. H. Hunt Co., Archt., James Bldg., Chattanooga, Tenn.

N. C., Charlotte—Mercy General Hospital soon inaugurate \$100,000 campaign for addition.

N. C., Newton—Catawba County Bd. of Comms., C. R. Brady, Chmn., erect \$20,000 children's hospital, Highway No. 16.

Okla., Oklahoma City—Hubbard Hospital, 1501 E. 11th St., Dr. John C. Hubbard, having plans drawn by Thos. L. Sorey, Braniff Bldg., for \$50,000 addition; brick and conc., 3 stories; plans ready about May 1.

Tenn., South Pittsburg—Dr. J. W. Kirkpatrick has broken ground for 14-room sanitarium.

Tex., Dallas—City, R. E. Burt, Mayor, and Dallas County, F. H. Alexander, County Judge, have low bid at \$153,439 from A. J. Rife Construction Co., 1913 N. Harwood St., for addition to nurses' home, Parkland Hospital; plumbing bid, \$10,350, from Levy Plumbing Co., 2107 N. Harwood; wiring bid, W. M. Smith Electric Co., 1907 Bryan St., at \$5952; heating bid, Martyn Bros., 2404 Swiss St., at \$6023; brick, rein. conc., terra cotta, fireproof, 4 stories, 102x95 ft., tile, terrazzo and cement floors, metal lath and plaster, metal sash, marble, elevator; DeWitt & Washburn, Archts., Kirby Building.

Tex., San Antonio—City C. M. Chambers, Mayor, and Bexar County, Perry S. Robertson, County Judge, expend about \$111,000 on Robert B. Green Memorial Hospital; John H. Cunningham, Chmn., Hospital Bd. of Trustees.

Tenn., Asheville—J. Reed Lane, Lane & Waterman, Am. Bk. Bldg., Davenport, Iowa, advises not figuring on addition to Grove Park Inn in immediate future but will probable do so later.

N. C., Asheville—J. Reed Lane, Lane & Waterman, Am. Bk. Bldg., Davenport, Iowa, advises not figuring on addition to Grove Park Inn in immediate future but will probable do so later.

Okla., Tulsa—E. W. Rickey has permit for \$50,000, 3-story apartment, 619 S. Elwood Ave.

Okla., Tulsa—Joe Cripe, 1520 E. 12th St., has permit for \$10,000 apartment, 1532 E. 12th St.

S. C., Greenville—W. R. Timmons, 118 W. Earl St., has permit for \$15,000 apartment, Gibbs and Westfield Sts.

Tenn., Johnson City—Management, Hotel John Sevier erect \$200,000, 100-room addition.

Tex., Austin—General Realty Co., J. T. Bowman, Pres., Seventh and Lavaca Sts., having plans prepared by Giesecke & Harris, 207 W. 7th St., for 250-room fireproof hotel and fireproof theatre, to seat 2000 people, at 7th and Colorado Sts.

Tex., Dallas—Hodges-Drake Hotel Co., F. H. Drake, Jr., Minden, La., and Floyd H. Hodges, Pres., Hodges Hotel Co., Shreveport, La., reported, negotiating for erection 29-story, 456-room hotel; Edw. F. Neild, Archt., City Bk. Bldg., Shreveport.

Tex., Dallas—Mrs. Clara Burns, 4306 Junius St., erect \$15,000, brick veneer, 8-apartment, 4310-12 Junius St.

Tex., Dallas—E. A. Randle, 5346 Mercedes St., has permit for \$12,500, brick veneer, 8-apartment, 4101-3 Hawthorne St.

Tex., Dallas—W. G. Martin, Insurance Bldg., has permit for \$10,000 brick, 24-room apartment, 4141-43 Prescott St.

Tex., Hereford—A. E. Hofues of Southern Building & Equipment Co., Dallas, conferring with Chamber of Commerce Hotel Comm. in regard to proposed \$200,000, 5-story, fireproof hotel on E. Third St.

Tex., La Grange—Gerhard Von Minden, Prop., Lester Hotel, remodel and erect 15-room addition; steam heating plant.

Tex., Lampasas—Chamber of Commerce Hotel Bldg. Comm. signed contract with Argentum Development Co., Bedell Bldg., San Antonio, for erection 3-story, stucco or brick 40-room hotel; J. N. McCannon, Inc., Archt., Construction Industries Bldg., Dallas.

Tex., Marshall—S. B. Perkins, Perkins Dry Goods Co., Austin St., Dallas, ready for bids about April 25 for 9-story, brick, steel, rein. conc., stone hotel; Wyatt C. Hedrick, Inc., Archt., First Natl. Bk. Bldg., Fort Worth.

Tex., Memphis—Memphis Hotel Co., E. P. Thompson and Roy Leverett, erect 5-story annex and remodel Memphis Hotel.

Tex., San Antonio—H. J. Shearer, Hutchins Hotel, erect 2-story addition to present 1-story building in rear, convert hotel into 21 apartments; brick and frame; Adams & Adams, Archts., Real Estate Bldg., bids in.

Tex., San Antonio—Emmy Dittmar Improvement Co., J. A. Dittmar, 509 Howard St., has low bids at \$47,966 and \$7630 from A. H. Shafer, 829 N. St. Mary's St., for plumbing and ventilating for 10-story Dittmar Apartments; low bid at \$40,813 from American Elevator Co.; Richard Vander Straten, Archt., 603 Travis Bldg.; Herff & Jones, Asso. Archts., 208 San Antonio Loan & Trust Bldg.; M. L. Diver, Struc. Engr., Calcasieu Bldg.

Tex., San Antonio—R. F. Henry, Hicks Bldg., and Dr. H. H. Ogilvie, Medical Arts Bldg., considering erecting \$200,000 7 or 8-story bachelor hotel, 600 block Main Ave.

Tex., San Antonio—W. S. Mial, care Will N. Noonan Co., Archt., Builders Exchange Bldg., has low bid at \$22,086 from Allen & Allen, 2406 Fredericksburg Rd., for 2-story, tile and stucco, 8-apartment, Laurel near San Pedro St.

Va., Portsmouth—J. D. Parker has permit for \$12,000 apartment, 5 Court St.

Va., Virginia Beach—Laskin Syndicate having plans prepared by H. J. Moloney, Ingraham Bldg., Miami, Fla., for \$80,000, 3-story and basement, 145x50 ft., brick hotel and apartment building, Atlantic Ave. and 10th St.; 50 rooms, 12 apartments, tile roof, comp., wood and tile floors, steam heat. Address Chas. O. Hutcheson, Supt. at site.

## Miscellaneous

Fla., Juniper—Seminole Golf Club, Edw. F. Hutton, Pres., 61 Broadway, New York, and S. Ocean Blvd., Palm Beach, plans \$500,000 golf course, tennis courts, swimming pool and clubhouse, 6 mi. from Juniper; Marion Sims Wyeth, Archt., Wyeth Bldg., West Palm Beach.

Fla., Tampa—Frank Frimmer, Archt., 302 N. Franklin St., receives bids April 15 for clubhouse, Howard and Spruce Sts.

Mo., Springfield—Jewell E. Windle and associates, 534 St. Louis St., erect addition and improve Alma Lohmeyer Funeral Home; \$15,000.

Mo., St. Louis—Bd. of Trustees, Cemetery Assn., Archbishop John J. Glennon, construct \$45,000 entrance gateway at Calvary Cemetery, W. Florissant and Calvary Aves.; 68-ft. shaft, 8 ft. in diameter in center of gateway statue on top of shaft and statue of St. Louis placed in front on 10-ft. pedestal; group to be of Bedford stone; also erect \$35,000 office building and \$42,000 superintendent's residence; O'Meara & Hills, Archts., Arcade Bldg.

Okla., Sand Springs—Sand Springs Amusement Co. erect two buildings in Sand Springs Park to replace burned structures; 50x70 and 50x30 ft., 1 story, tile and stucco, conc. floors, slate roofs; Claude Page, Engr. 4-4

Tenn., Nashville—Health Club, Inc., Dr. A. S. Kelin, Doctor's Bldg., plans \$70,000, 3-story, 33x 65 ft., brick, stone and conc., fireproof club building.

Tex., Galveston—M. A. Cohen plans conc. and steel pier and casino on beach near 17th St.

Tex., McAllen—Chamber of Commerce, E. D. Mathis, Chmn., Bldg. Comm., promoting erection 1-story, 60x125 ft., hollow tile and stucco tourist clubhouse; tile floors and roof; A. H. Woolridge, Archt.

Tex., Nacogdoches—Pine Woods Country Club, W. R. McKinney, Sec.-Treas., erect \$10,000 clubhouse; put down artesian well.

Tex., San Antonio—San Antonio Gun Club, Robert Ward, Sec., erect clubhouse at International Exposition and Livestock Show grounds.

Va., Berryville—Clarke County War Memorial, Inc., capital \$50,000, chartered; J. T. L. Jones; construct building as memorial to men and women of Clarke County who have rendered military service.

## Schools

Ala., Auburn—Following contractors estimating on \$250,000, 3-story and basement, steel frame, brick, stone trim chemistry building, Alabama Polytechnic Institute, bids April 18, at office Warren, Knight & Davis, Archts., Protective Life Bldg.; Capitol Construction Co., Atlanta, Ga.; H. B. Nelson Co., Augusta, Ga.; Hugger Bros., Construction Co., Shepherd Bldg., Frost Construction Co.; A. C. Samford, Shepherd Bldg.; Algernon Blair, 11 S. Lawrence St., all Montgomery; Raymond Construction Co., Bowling Green, Ky.; J. F. Holley Construction Co.; L. C. Ellison & Co., both Ensley; Southern Construction Co., Inc., 615 S. 11th St.; A. J. Honeycutt Co., 2408 15th Ave., N.; Smallman Construction, 1109 Fifth Ave., S.; all Birmingham.

Ala., Evergreen—State Dept. of Education, R. E. Tidwell, Supt., Montgomery, erect \$30,000 State Secondary Agricultural School; bids in.

Ala., Gadsden—City votes May 3 on \$100,000 bonds for 8-room school, Henry St. and Tuscaloosa Ave. and 8-room addition to East Gadsden Elementary School; A. D. Simpson, Archt.

Ala., Mobile—Mobile County plans vote on \$500,000 bonds for school building program to include \$200,000 high school in northwest part of city, not in city limits, and \$76,000, 8-room school on Florida St.; additions to following schools: Alba, 7 rooms; Semmes, 5 rooms; Wilmer, 4 rooms; Tanner-Williams, 6 rooms; Citronelle, 8 rooms; Prichard, 6 rooms; Gorza, 4 rooms; Crichton, 4 rooms and auditorium; Spring Hill, 4 rooms and other improvements; H. H. Wefel, School Commissioner.

Ala., Wilmer—School Bd. plans 7-classroom building.

Fla., Gainesville—Sigma Lambda Tau Fraternity, University of Florida, Robert C. Evans, Sec.-Chmn., Bldg. Comm., erect \$25,000, 2-story, brick or brick veneer frat house.

Fla., Gainesville—University of Florida, care P. K. Yonge, Chmn., receives bids April 15 for stable, corrall building, gun shed, explosives magazine, blacksmith shop and barracks for artillery unit of R. O. T. C. established by U. S. Government; rein.

cone, and brick, tile roof, conc. and tile floors, \$30,000; plans by Rudolph Weaver, Peabody Hall; contractors estimating: T. Bakker, 4618 Lumb Ave.; Frost Construction Co., 607 Marino St.; Ricketts & Haworth, Eva and Franklin Sts.; W. E. Rubush, 501 Morgan St.; W. P. Richardson; Wheeler Construction Co., all Tampa; McBath & Co.; Parklak Construction Corp., 110 Second St., both St. Petersburg. 2-14

Fla., Lemon City—Dade County Bd. of Public Instruction, Miami, having plans prepared by H. H. Mundy, 218 N. E. Fifth St., Miami, for gymnasium at Agricultural High School; \$60,000, 1½-stories, 88x120 ft., steel and rein. conc., conc. block walls.

Fla., Miami—Dade County Bd. of Public Instruction ready for bids about May 1 for \$80,000, 2-story, 160x90-ft., steel, brick and rein. conc., fireproof school in Miami Shores; comp. roof; Weed & Virrick, Archts., 328 N. E. Second Ave.

Fla., Palm Beach—Palm Beach County Bd. of Public Instruction, West Palm Beach, instructed Wm. Manley King, Archt., Harvey Bldg., West Palm Beach, to revise for school and advertise for bids April 24.

Fla., Tallahassee—Leon County Bd. of Public Instruction, F. S. Hartsfield, Supt., receives bids April 29 for \$100,000, 2-story and basement grade school and \$50,000 negro high school in School Dist. No. 1; rein. conc., brick, stone trim. comp. and tile roofs, terrazzo floors, steam heat; plans at office Edwards & Sayward, Archts., 101 Marietta St., Atlanta, Ga., and Builders' Exchange, Atlanta, Jacksonville, Miami, and Tampa, and office Mr. Hartsfield. 8-16-28

Fla., Athens—University of Georgia Medical College started campaign to raise \$300,000 for erection centennial memorial building. Ga., Blakely—Union Consolidated School Dist., Shelly Simmons, Trustee, voted \$25,000 bonds.

Ga., Rome—Model School Dist., Floyd County, E. F. Padgett, Chmn., Bd. of Trustees, receives bids April 19 for \$60,000, brick school; comp. roof, wood floors; plans from Lockwood & Poundstone, Archts.; Edw. F. Billie, Asso. Archt., both Forsyth Bldg., Atlanta. 4-4

La., Cottonport—Avoyelles Parish School Bd., G. L. Portiere, Pres., Marksville, ready for bids about May 1 for 2-story, rein. conc., brick and stone trim high school and improvements to present building for grammar school; \$60,000 bonds voted; Wm. T. Nolan, Archt., Canal Bk. Bldg., New Orleans. 3-7

La., New Orleans—Church of Sacred Heart of Jesus, Father Quinlan, Pastor, having plans prepared by Emilie Well, Inc., Whitney Bk. Bldg., for 2-story and basement, 67x100 ft., brick frame and steel parochial school and 2-story, 136x47 ft. brick and frame sisters' residence on Canal St. between S. Lopez and Rendon Sts.; parochial school to contain 10 classrooms and auditorium; sisters' residence-chapel, community room, 2 infirmary rooms and 34 bedrooms; tile roofs.

Md., Alta Vista—Montgomery County Bd. of Education, E. Broome, Sec., Rockville, selected H. W. Cutler, 1800 E. St., N. W., Washington, D. C., to prepare plans for \$30,000, 1-story, brick elementary school. 3-21

Md., Annapolis—Navy Dept., Bureau of Yards and Docks, R. J. Potbury, Ch., Washington, D. C., has low bid at \$13,900 from W. P. Thurston Co., Inc., Richmond Trust Bldg., Richmond, Va., for repairs and improvements to rifle range at Naval Academy; also expend \$75,000 for improvements to chapel, 1-story, stone.

Md., Baltimore—University of Maryland, S. Shoemaker, Chmn., Bldg. Comm., 816 Fidelity Bldg., selected Smith & May, Calvert Bldg., to prepare plans for \$200,000, 1-story brick central heating plant.

Md., Baltimore—University of Baltimore, Howell A. King, Dean, 600 block St. Paul St., acquired former Dental College Bldg., S-47-51 N. Howard St., and soon call for bids for improvements and erection rear addition to contain gymnasium and additional lecture rooms; \$25,000; Clyde N. & Nelson Friz, Archts., Lexington Bldg.

Md., Baltimore—Public Improvement Comm., Herbert J. Leimbach, Supvg. Engr., plans to call for bids soon for \$1,000,000 addition to Baltimore Polytechnic Institute; plans by Chas. M. Anderson, 9 E. Pleasant St., call for auditorium to seat 2500, gymnasium, swimming pool, cafeteria, library, additional classrooms, principal's offices. 11-26-27

Md., Baltimore—Johns Hopkins University has gift of \$450,000 for erection of building to house recently formed Institute for Study of Law and restoration Carroll Mansion to original state.

Md., Cabin John—Montgomery County Bd. of Education, E. Broome, Sec., Rockville, erect \$30,000 1 and 2-story, brick elementary

school addition; H. W. Cutler, Archt., 1800 E St., N. W., Washington, D. C. 3-21

Md., Chevy Chase—Montgomery County Bd. of Education, E. Broome, Sec., Rockville, erect \$57,000, 3-story, brick high school addition, 44th and Leland Sts., S. E.; W. H. Cutler, Archt., 100 E St., N. W., Washington, D. C. 3-21

Md., College Park—University of Maryland, S. Schoemaker, Chmn., Bldg. Comm., 816 Fidelity Bldg., Baltimore, selected Smith & May, Calvert Bldg., Baltimore, to prepare plans for \$100,000, 3-story addition to Engineering Bldg., 3-story Horticultural Bldg., \$125,000, 3-story girls' dormitory; all brick; call for bids in about 10 days for \$200,000, 1-story, brick and steel library.

Md., Owings Mills—Rosewood State Training School, Dr. F. W. Keating, Supt., Rosewood, and 22 Light St., Baltimore, plans \$75,000, 2½-story dormitory; W. W. Emhart, Archt., Union Trust Bldg., Baltimore, preparing preliminary plans.

Md., Frostburg—State Bd. of Education, A. S. Cook, Supt., 20th floor, Lexington Bldg., selected Smith & May, Calvert Bldg., both Baltimore, to prepare plans for \$50,000 2-story, brick, elementary practice building at State Normal School. 8-16-28

Md., St. Mary's City—Bd. of Trustees, St. Mary's Female Seminary, receives bids April 16 for \$40,000, 3-story and basement, 36. 6x64 ft. dormitory and classroom addition; brick and steel, slate roof, mastic or magnasite floors, extend present heating plant; plans from Stanislaus Russell, Archt., 11 E. Lexington St., Baltimore.

Md., Silver Spring—Montgomery County Bd. of Education, E. Broome, Sec., Rockville, erect \$30,000, 1 and 2-story brick elementary school; H. W. Cutler, Archt., 1800 E St., N. W., Washington, D. C. 3-21

Miss., Brooklyn—Forrest County Bd. of Education, Courthouse Bldg., Hattiesburg, receives bids May 6 for \$50,000, 2-story, brick, stone trim high school for Agricultural High School and alterations to Academic building; built-up comp. roof, wood and conc. floors; plans from N. W. Overstreet, Archt., Mississippi Fire Insurance Co. Bldg., Jackson. 2-21

Miss., Clarksdale—School Trustees, H. B. Heidelberg, Supt., having plans prepared by P. J. Krouse, M.-W. Bldg., Meridian, Miss., and ready for bids in about 2 weeks for 3-story, brick, stone trim, fireproof junior high school, two 1-story, 32x30 ft., brick units at Eliza Clark School, central heating plant, and improvements to high school: \$225,000. 4-4

Miss., Columbia—Following contractors estimating on \$65,000 brick school, 3 staff cottages, to cost \$12,000; repairing 10 buildings, \$50,000; additions to laundry and power house, \$60,000, for Mississippi Industrial and Training School, bids April 18: General—Jno. T. McDonald & Sons, Pass Christian; J. C. Thomas Co., Inc., Jackson; Dye & Mullins; Burt Construction Co., both Columbia; Beckelhimer & Small, Gulfport; A. M. Tisdale, Laurel; W. S. Rutter, Brookhaven; A. Garrett, Maritime Bldg., New Orleans; J. M. Raymond Construction Co., Hildebrandt Bldg., Jacksonville, Fla.; heating and plumbing—Alonzo B. Hayden, Inc., Pass Christian; Hamilton Bros., Gulfport; N. O. Nelson Manufacturing Co., 680 Linden St., Memphis, Tenn.; electric—Gates Electric Co., Gulfport; equipment—Derbes, Inc., Gulfport; Wirt & Knox Manufacturing Co., 23rd and York Sts., Philadelphia, Pa.; Vinson B. Smith, Jr., Archt., Bank of Gulfport, Gulfport. 2-21

Miss., Macon—City votes in May on \$45,000 bonds for erecting school, remodeling existing addition to present building; V. S. Jackson, member School Trustees. 3-7

Md., Bakersfield—Town plans vote on \$20,000 bonds for school; defeated recent bond issue. Address School Bd.

Md., Columbia—University of Missouri plans \$125,000 field house; C. L. Brewer, Director of Athletics.

Md., Independence—City defeated \$185,000 bonds for 24-room annex to William Chrisman High School; submit to voters again Apr. 20; Eugene B. Street, Supt. of Schools; James Oliver Hogg, Archt., 101 Waisix Bldg., Kansas City.

Md., Moberly—City defeated \$500,000 school bonds; B. F. Self, Sec. Bd. of Education. 3-28

Md., Springfield—Springfield School Dist. voted \$1,500,000 bonds; erect number grade schools, remodel senior high school, purchase athletic field and make improvements to other schools; A. R. Stewart, Sec. Bd. of Education. 2-28

Md., St. Louis—Point Dist. School Bd. erect \$21,000, 1-story and basement, 70 x 30 ft., brick and conc. school, Telegraph road; Marcel Boucault, Archt., Ambassador Bldg., bids in.

Md., St. Louis—Washington University, D. R. Throop, Chancellor, plans \$250,000 School

of Architecture and \$500,000 Museum of Art, Architecture and Archaeology; construction expected to begin in about year or 18 months.

N. C. Charlotte—City defeated \$1,250,000 school bonds for repairs and additions. H. P. Harding, Supt. of Schools. 3-14

N. C. Charlotte—Mecklenburg County Bd. of Education, Frank A. Edmondson, Supt., erect school in Hoskins-Thomasboro-Airport territory.

N. C. Greenville—School Bd., J. H. Rose, Supt., received bids April 11 for \$45,000, 1-story brick school; 190 ft. long, tile roof, wood and tile floors; 8 classrooms and assembly hall; plans from G. R. Berryman, Archt., Odd Fellows Bldg., Raleigh. See Want Section—Building Material and Equipment. 4-4

N. C. Morganton—Morganton Graded School Dist. votes April 22 on \$35,000 bonds. Address Dist. School Trustees.

S. C. Darlington—Darlington School Dist. No. 2 plans vote \$50,000 bonds. Address Dist. School Trustees.

S. C. Gaffney—Bd. of School Trustees issue \$50,000 bonds.

S. C. Newberry—Newberry College remodel Smeitzer Hall; \$30,000.

Tenn., Adamsville—City plans vote on \$10,000 school bonds. Address School Bd.

Tenn., Cookeville—General Assembly, Nashville, passed bill authorizing \$1,000,000 in bonds for 4-year building program at Tennessee Polytechnic Institute.

Tenn., Columbia—City, Harry W. Frierson, Mayor, and Maury County voted \$100,000 bonds each for proposed Middle Tennessee Junior College.

Tenn., Bristol—City considering vote in June on \$350,000 bonds—\$150,000 for elementary school in West ward on Broad St. near corporation limits and elementary school in Central ward; B. Rubins, Supt. of Education.

Tenn., Clinton—City plans issuing \$60,000 school bonds. Address School Bd.

Tenn., Erwin—Unicoi County Bd. of Education receives bids April 15 for \$100,000 rein. conc. and brick high school; tar and gravel roof, steam heat; R. G. Ragan, Archts., 202½ Second St., S. W., Roanoke, Va. 3-7

Tenn., Chattanooga—Hamilton County adopted resolution requesting Legislature for authority to issue \$1,200,000 bonds for school building purposes in county and recently annexed suburban territories; building program to cover period of 5 years; J. E. Walker, Supt. of Education.

Tenn., Springfield—Cooperstown School Dist. votes soon on \$15,000 bonds. Address Robertson County School Bd.

Tex., Beaumont—French School Dist., A. B. C. Dean, Supt., receives bids April 15 for \$40,000, 1-story, 8-classroom grammar school; bids for complete work or separate bids for general contract, heating, plumbing, and lighting; plans from Livesay & Wiedemann, Archts., San Jacinto Life Bldg. 3-28

Tex., Belton—Baylor College, Dr. J. C. Hardy, Pres., ready for bids about May 1 for \$100,000, 3-story, brick, stone and rein. conc., fireproof dining hall; R. H. Hunt Co., Archt., 1407 S. W. Life Bldg., Dallas. 2-14

Tex., Cuero—De Witt County School Bd., H. B. Montgomery, Supt., plans school at Green De Witt to replace burned structure.

Tex., Dallas—Southern Methodist University plans library, chemistry building, dormitory for theological students, law school and administration buildings, as part of \$3,000,000, campaign scheduled to open in 1930.

Tex., Denton—City, J. W. Erwin, Sec., voted \$135,000 bonds to include \$50,000 for physical education building and purchase additional athletic grounds at senior high school. 3-14

Tex., Humble—Humble Ind. School Dist., H. D. McDonald, Sec., ready for bids about May 1 for 2-story, 146 x 185 ft., brick, hollow tile, rein. conc., stone trim Junior-Senior High School and remodeling grammar school; \$140,000 bonds voted; Harry D. Payne, Archt., Kirby Bldg., Houston. 3-21

Tex., Marshall—College of Marshall, Hobart Key, Chmn., Bldg. Comm., erect \$30,000, 3-story, brick, fireproof dormitory; S. W. Ray, Archt., Marshall and Jacksonville; bids in. 3-28

Tex., Vernon—City, S. H. Hall, Sec., receives bids April 29 for \$120,000 high school; separate bids for plumbing, heating and lighting; plans from Rittenberry & Carder, Archts., Amarillo. 1-31

Tex., Waco—Baylor University, Dr. S. P. Brooks, Pres., having plans prepared by Birch D. Easterwood, Liberty Natl. Bk. Bldg., and H. L. Spicer, Amicable Bldg., for \$350,000 Baylor Women's Memorial Dormitory on Speight St.

Va., Richmond—University of Richmond, Dr. F. W. Boatwright, Pres., having preliminary plans prepared by Chas. M. Robinson, Times-Dispatch Bldg., for outdoor theater to seat 2000 people.

W. Va., Concord—State Bd. of Control, Jas. S. Lakin, Pres., Charleston, considering erecting physical training building for women at Concord State Normal School.

W. Va., Fairmont—State Bd. of Control, Jas. S. Lakin, Pres., Charleston, erect \$180,000 science building at Fairmont State Normal School; R. A. Gillis, probable Archt., Fleming Bldg.

W. Va., Glenville—State Bd. of Control, Jas. S. Lakin, Pres., Charleston, considering erecting library at Glenville State Normal School.

W. Va., Institute—State Bd. of Control, Jas. S. Lakin, Pres., Charleston, erect \$120,000 vocational building at West Virginia State College; V. C. Pettit, Kanawha Bk. & Tr. Bldg., Charleston, probable Archt.

W. Va., Montgomery—State Bd. of Control, Jas. S. Lakin, Pres., Charleston, erect \$100,000 class room building at New River State School; V. C. Pettit, Kanawha Bk. Bldg., Charleston, probable archt.

W. Va., Morgantown—West Virginia University, Dr. John R. Turner, Pres., having plans prepared by Davis, Dunlap & Barney, 1805 Walnut St., Philadelphia, Pa., for \$300,000 library.

W. Va., Morgantown—Beta Theta Pi and Delta Tau Delta fraternities, West Virginia University broke ground for frat houses; Phi Sigma Kappa begin work soon on home.

W. Va., West Liberty—State Bd. of Control, Jas. S. Lakin, Pres., Charleston, erect \$100,000 second unit of administration building at West Liberty State Normal School; Faris & Faris, 1117 Chapline St., Wheeling, probable Archts.

### Stores

Fla., Jacksonville—Sears, Inc., Philadelphia, Pa., Samuel Schwartz, Jacksonville, Pres., Florida Sears, Inc., leased Gardner Bldg., on W. Bay St.; expend \$18,000 for remodeling; plans similar stores in Miami, St. Petersburg and Tampa.

Fla., Leesburg—McCrory Store Corp., F. H. McInerney, Constr. Mgr., 1107 Broadway, New York, erect 3 or 4-story, brick, steel and rein. conc. frame store; plans by W. M. Simpson, care owner. 4-4

Fla., Tampa—Rutland Bros., Inc., ready for bids about April 15 for 2-story, brick, addition to store; also 3-story, 25x90-ft., steel frame addition in rear, elevator and fire tower, \$35,000; B. C. Bonfoey, Archt., 305 Morgan St. 3-28

Ky., Burgin—N. H. Scott, Lancaster, erect building for general merchandise business.

La., Alexandria—C. M. Waters, Inc., erect 4-story, 60x107-ft. brick and terra cotta store, Fourth and Murray Sts., to be leased to Montgomery Ward & Co., Chicago; C. Errol Barron, Archt., Alexandria.

La., New Iberia—Jules Dreyfous Wholesale Grocery Co., Inc., erect building on Main St.

La., Shreveport—Robert H. Fishel, 1137 Daizell St., has low bid at \$8200 from H. & B. Construction Co., Ricou-Brewster Bldg., for remodeling store, 510-12 McNeil St.; 1-story, 30x80 ft.; Seymour Van Os, Archt., City Bk. Bldg.

Md., Govans, Baltimore—Frank W. Miller Realty Co., 3001 Greenmount Ave., acquired hall of Maryland Lodge of Odd Fellows, Yord road and Maryland Ave., and improve with number stores, bowling alleys on second floor.

Miss., Jackson—Williams Stores, Robinson and Rose Sts., start work about April 15 on store, Fortification St. and Bailey Ave.

Miss., Laurel—Tate Company, J. C. Tate, erect 48x120 ft. brick store, Central Ave. and Magnolia St.; S. H. Kress Co., Lessee, 114 Fifth Ave., New York.

Mo., St. Louis—Harry Rossen, 1540 S. Broadway, reported, erect \$600,000, 7-story brick, store, office and apartment, Grand Ave. and Connecticut St.

N. C. Kinston—Dr. Henry Tull Estate, James M. Parrott, representative, erect business building, Queen and Caswell Sts.

N. C., Winston-Salem—Mrs. W. N. Reynolds, 644 W. Fifth St., has permit for \$42,000 mercantile building, W. 4th St.

Oka., Tulsa—Annie Whiteley has permit for \$10,500 store and apartment, 2825 E. Haskell St.

Tenn., McKenzie—Thomas & Hamilton erect \$14,000, 2-story and basement, 48 x 100 ft. brick store; Luther Parham, Archt., 586 N. Hays St., Jackson; bids in.

Tenn., Memphis—Balton & Sons, 189 Gay-

so Ave., advises do not plan addition to building, Gayoso Ave and 3rd St. 4-4

Tex., Beaumont—W. W. Kyle, Kyle Bldg., erect \$25,000 brick building, Calder Ave. and Center St.

Tex., Beaumont—F. W. Kreiter plans 3-story, 60x120 ft. brick or stucco building.

Tex., Crystal City—Pegues Mercantile Co. erect 1-story, 55x100 ft., brick, conc. frame store; tar and gravel roof.

Tex., Dallas—Ed Reynolds and Paul Pendland, 1526 Elm St., remodel and erect addition to store.

Tex., El Paso—John C. Cooley, 1904 E. Yandell, El Paso, has permit for \$13,000 store, 2130 Texas St.

Tex., Laredo—A. Bertani ready for bids for \$60,000, 2-story, 95x108-ft., brick, rein. conc., terra cotta front store, Farragut St. and Convent Ave.; Page Brothers, Archts., Austin Natl. Bk. Bldg., Austin, and Brownsville; Montgomery Ward & Co., Lessee, Chicago. 4-4

Tex., Port Arthur—Dr. E. W. Vaughan, 203 Procter St., erect 4-store building in 600 block Procter St.; \$35,000; 200 ft. frontage; Livesay & Wiedemann, Archts., San Jacinto Life Bldg., Beaumont.

Tex., San Angelo—F. W. Woolworth, 119-121 S. Chadbourne St., remodel and erect one-story, brick addition; \$14,000.

Tex., San Antonio—B. Polunsky, 652 Main Ave., remodel and erect rear addition to store and apartment; Will N. Noonan Co., Archt., Builders Exchange Bldg., San Antonio.

### Theaters

Ark., Hot Springs National Park—B. M. Jackson, care Southern Securities Co., 111 W. Second St., and James A. Rector, both Little Rock; medical arts bldg., stadium type theatre and several stores, Central Ave.; John P. Almond, Archt., Boyle Bldg., Little Rock. (See Buildings Proposed—Bank and Office)

N. C., Reidsville—Benton & Benton, Archts., Fidelity Bldg., Wilson, N. C., prepared plans for \$75,000 theatre; brick, built-up roof; bids in.

Tex., Austin—General Realty Co. erect hotel and theater. See Buildings Proposed—Hotels and Apartments.

Tex., Marshall—East Texas Theatres, Inc., Sol Gordon, Pres., Perlstein Bldg., Beaumont, erect \$250,000 theater.

Tex., Waco—J. W. Colvin, Keystone Bldg., Houston, erect \$350,000, brick, tile, steel and rein. conc. theater; Alfred C. Finn, Archt., 505 Bankers Mortgage Bldg., Houston; Dent Theatres, Inc., Lessee, 2009½ Jackson St., Dallas. 3-28

### Warehouses

Ga., Atlanta—General Fire Extinguisher Co., 248 N. Highland Ave., receives bids April 22 at office Lockwood Green Engineers, 300 Wilson Bldg., Charlotte, N. C., for additions to warehouse; rein. conc. brick, built-up roof, struc. steel, conc. floors; following contractors estimating: J. S. McCauley, Bond Allen Bldg.; Smith & Williams, The Flagler Co., both Red Rock Bldg.; Brazell & Miller; Wager & Co., Inc., Norris Bldg.; A. K. Adams Co., 542 Plum St., N. E.; A. J. Krebs Co., Walton Bldg.; Griffin Construction Co., 452 Spring St., N. W., all Atlanta.

La., New Orleans—Sharp & Dohme, Pharmaceutical Chemists, 78 Varick St., New York, purchased 5-story, 42 x 96 ft., brick building, 516-18 Common St.; remodel for distributing plant.

Oka., Sand Springs—Sand Springs Home Interests erect \$60,000 brick warehouse, 18 E. Archer St.

Tenn., Johnson City—The Texas Company, Frank A. Gammon, Dist. Agt., start work in 30 days on \$50,000 storage and distributing plant on Jonesboro pike.

Tenn., Memphis—Jones & Laughlin Steel Corp., E. H. Hughes, erect 1-story, 122 x 430 ft. warehouse; fab. steel, galvanized iron siding and roof; Gardner & Howe, Engrs., Porter Bldg.; bids in.

Tex., San Antonio—San Antonio Building Material Co., Milam Bldg., build \$125,000 materials house, Presa St. and Southern Pacific tracks; site 300 ft. on Presa St., 400 ft. on Hoeft St. and 1100 ft. on railroad.

Tex., San Antonio—Albert and Ernest Steves, 716 E. Commerce St., ready for bids about Apr. 15 for 1-story, 44.6x116 ft., brick office, warehouse and distribution building, 300 block E. Center St.; R. H. H. Hugman, Archt., 405 Texas Bk. Bldg.; National Biscuit Co., Lessee, New York.

Va., South Boston—Nelson Brothers & Crenshaw have permit to erect tobacco warehouse on Logan St.; frame and sheet iron.

## BUILDING CONTRACTS AWARDED

## Bank and Office

Ark., Little Rock—Mutual Real Estate Co., completed foundation for \$200,000 bank and office bldg. to be leased to Union Trust Co.; rein. conc., stone exterior, hollow tile, steel sash and casements, basement, 3 stories and 2 mezzanines, 70 x 142 ft., 20-yr. comp. roof; furnishings, equipment, etc., \$100,000; Thompson, Sanders & Ginochio, Archts.; Hall Bldg.; V. C. Anderson, Engr.; Geo. H. Burden Co., Contr.; Moore & Turner Bldg., all Little Rock; equipment to St. Louis Bank Building & Equipment Co., 900 Sidney St., St. Louis, Mo. See Want Section—Building Material and Equipment. 4-4

Arw., Little Rock—El Dorado Plumbing & Heating Co., Pyramid Life Bldg., has plumbing and heating contract for \$200,000 bank bldg. for W. B. Worthen Co.; elect. work, Arkansas Electric Co., 316 Louisiana St.; struct. and rein. steel, Arkansas Foundry Co., E. Sixth St.; orna. iron, Bemberg & Sons Iron Works, 1000 Fairview St.; paint, Rexer & Dempsey, Rieger Bldg., all Little Rock; Carthage stone, Carthage Marble Corp., Carthage, Mo.; structure conc., steel and stone, 2 stories, mezzanine and basement, 50x140 ft., cement, marble, tile and terrazzo floors, comp. roof Lemo steel casements Steel-Crete vault reinforcing; Geo. R. Mann, Wanger & King, Archts., Donaghey Bldg.; Gordon Walker, Contr., Pyramid Life Bldg., both Little Rock; first floor poured. 4-4

D. C., Washington—National Bank of Washington erect brick branch bank, 1121-23 Water St., S. W.; 1 story; C. Wohlkemuth, Contr., 1800 E St., N. W.

Miss., Jackson—Plaza Investment Co., J. B. Stirling, Pres., 600 N. State St., let contract at \$319,650 to I. C. Garber, Medical Bldg., and M. A. Lewis, 901 N. Jefferson St., for 12-story office bldg., Amite and Congress Sts.; limestone, hollow tile, steel sash, bronze railing on main stairway, 80x130 ft., 70,500 sq. ft. office space, 3 high-speed elevators, circulating ice water; contracts later on plumbing, heating, refrigeration and elevators; N. W. Overstreet, Archt., Miss. Fire Bldg.; foundation and steel work contracts previously let. 3-21

Miss., Macon—Bank of Macon let contract to B. H. Cline, Birmingham, Ala., to remodel bldg.: \$15,000; P. J. Krouse, Archt., M. & W. Bldg., Meridian, Miss.

Tenn., Memphis—A. Haisch, 2283 Nelson Ave., erect brick veneer duplex; 2 stories, 29x53 ft., oak floors, comp. shingle roof; C. E. Marsh, Contr., 247 N. Watkins St.

## Churches

La., Monroe—First Church of Christ, Scientist, let contract to Eugene Flourney for \$300,000 bldg., Auburn Ave. and N. Second St.; face brick, stone trim, green tile roof, rein. conc. foundation, struct. steel and iron work, sheet metal work, orna. iron, wood floors, ventilating system; J. W. Smith & Associates, Archts., Ouachita Natl. Bk. Bldg. 12-20

Miss., Columbus—First Presbyterian Church let contract to D. S. McClanahan & Son, Columbus, for \$50,000 Sunday school; brick, steel, wood and conc., 3 stories, 50 x 100 ft., conc. foundation, built-up roof; P. J. Krouse, Archt., M. & W. Bldg., Meridian. 4-4

N. C., Boone—Baptist Church excavating for \$35,000 Sunday school; constr. supervision by R. F. Coffey; brick, 3 stories, 60x83 ft., hardwood floors, conc. foundation, built-up roof; furnishings, equipment, etc., \$10,000; plans by Mr. Coffey and Sunday School Bd. of Southern Baptist Convention. See Want Section—Building Material and Equipment. 4-4

## City and County

Ala., Birmingham—Tennessee Coal, Iron & Railroad Co., Fairfield, Ala., for furnishing steel \$3,000,000 to \$3,250,000 Jefferson County courthouse; Holabird & Root, Archts., 333 N. Michigan Ave., Chicago, Ill.; Harry B. Wheeler, Asso. Archt., Steiner Bldg., Birmingham; Southern Ferro Concrete Co., Contr., 70 Ellis St., Atlanta, Ga. 4-4

La., New Orleans—Walter Scrimshaw, 4300 Elba St., has painting contract for \$2,000,000 municipal auditorium; plastering, Bird & Putfark, N. O. Bk. Bldg.; sheet metal work, Holzer Sheet Metal Works, 321 Burgundy St.; lumber, A. Stef Lumber Co., Inc., 600 N. Broad St.; roofing, Olympia Roofing Co., 321 Burgundy; tile work, Tile Shop, Inc., 824 Carondelet St.; glazing, Pittsburgh Plate Glass Co., 314 Girod St.; millwork, National Sash & Door Co., 600 N. Dupre St.; pile

driving, W. Horace Williams Co., Inc., Southern Bldg.; plumbing, heating and ventilating, A. G. Rose, Inc., Loyola Ave.; steel doors, Kinnear Manufacturing Co., Hibernia Bk. Bldg.; hardware, Woodward, Wright & Co., Ltd., 451 Howard Ave.; marble, Southern Builders' Material Co., Mason Blanche Bldg., all New Orleans; granite, Cold Spring Granite Co., Cold Spring, Minn.; limestone, Ingalls Stone Co., Bedford, Ind.; orna. iron work, Birmingham Ornamental Iron Co., Birmingham, Ala.; Favrot & Livaudais, Ltd., Archts., Hibernia Bldg.; Sam Stone, Jr., & Co., Consit. Archts., Masonic Temple Bldg.; Caldwell Bros. and Bond Bros., Gen. Contrs., 816 Howard Ave., New Orleans. 4-4

Miss., Hattiesburg—City Coms., let contract to Oden & Glenn for \$30,000 library; E. C. Hearon & Sons, Archts., 201½ W. Pine St. 1-17

Tex., San Antonio—City, Phil Wright, Fire and Police Commr., let contract at \$19,987 to K. G. Granberg, 340 Normandy St., for Fire Station No. 8; brick and rein. conc., 2 stories; P. G. Silber & Co., Archts., Bedell Bldg., Matthews & Kenan, Engrs., Smith Young Tower. 3-28

## Dwellings

Ala., Albertville—C. A. Goodwin erect 2 dwellings; brick veneer, 2 stories, comp. roofs, steam heat; Wm. Leslie Welton, Archt., Amer. Natl. Bk. Bldg., Birmingham; owner builds.

Ala., Birmingham—R. J. Hawn, 1230 N. 29th St., let contract to Paul Bros., Hollywood, for stone and stucco residence; 2 stories and basement, 69 x 37 ft., slate roof, vapor steam heat, tile terrace and bath; Chas. H. McCauley, Archt., Jackson Building. 3-28

Ala., Birmingham—H. B. Foster, 3219 Carlisle Rd., erect \$10,000 brick veneer residence; 2 stories, 56x47 ft., comp. roof, 10 rooms; C. C. Lawrence, Contr., care owner.

Ala., Birmingham—J. H. Berry, Jr., 2907 Twenty-seventh St., N., erect brick veneer residence; 1 story, 6 rooms, oak floors, shingle roof; Ye Plantry, Inc., Archt., 1713½ Live Oak St., Dallas, Tex.; plans complete.

Ala., Birmingham—D. O. Nichols, 1018 S. 42nd St., erect \$25,000 residence, Mt. Brooke Estates; brick veneer, 2 stories, 40x52 ft., tile roof, steam heat; Jacob E. Salle, Archt., Empire Bldg.; owner builds.

Ala., Birmingham—Forbes Lyles, 630 Cotton Ave., erect \$15,000 residence, Fairway Sector, Mt. Brooke Estates; brick veneer, 2 stories, 41x39 ft., comp. roof, steam heat; Woolard & Lynch, Contrs., 2115 N. First Ave.

Ala., Fairfield—E. K. Miller, 1120 Forty-first St., erect \$15,000 brick veneer residence; 2 stories; Herron & Tillia, Contrs., 406 N. 23rd St., Birmingham.

D. C., Washington—L. E. Breuninger & Sons, Colorado Bldg., have permit for 2 dwellings, 1352-60 Iris St.; frame and brick; \$24,000; owners build.

Fla., Lake Wales—Jas. L. Hamill remodel and erect addition to residence, Mt. Lake Club; Adams & Hamilton, Archts., Ritter-Setzler Bldg.; G. A. Miller, Inc., Contr., both Tampa. 3-14

Fla., Miami Beach—J. H. Jones, St. Louis, Mo., let contract to E. G. Horne Construction Co., Miami, for \$35,000 residence and garage, Collins Ave.; conc. block, 2 stories, 45 x 70 ft., tile and wood floors, tile roof; F. Wyatt Woods, Archt., Ingraham Bldg., Miami. 3-14

Fla., Palm Beach—Dr. Chas. C. Morrison erect addition to residence; patio; Marion Sims Wyeth, Archt., Wyeth Bldg.; Arnold Construction Co., Contr., Harvey Bldg.

Fla., Palm Beach—E. P. Charlton erect 4 dwellings, El Bravo Park; Marion Sims Wyeth, Archt., Wyeth Bldg.; Benj. F. Hoffman, Inc., Contr., 179 Main St.

Fla., Palm Beach—T. R. Cowell, New York, let contract at about \$73,000 to R. C. McNeil, County Rd. and Peruvian Ave., for hollow tile residence, El Velado; 2-stories, rein. conc. foundation, old Cuban tile roof; Howard Major, Archt., 19 la Parigi; landscaping, Island Landscape Co., Inc., West Palm Beach.

Fla., Atlanta—S. A. Redwine, Atlanta Tr. Bldg., erect \$15,000 residence, Club Drive N. E.; Colonial type, frame, 1 story and basement, hardwood floors, tile baths, comp. shingle roof; owner builds.

Fla., Atlanta—A. N. Canton, 2840 Peachtree Rd. N. E., erect \$15,000 duplex, 28th St. N. E.; brick veneer, 2 stories, hardwood floors, comp. shingle roof, tile baths; owner builds.

Ga., Atlanta—R. P. Pool, 664 Linwood Ave. N. E., erect \$40,000 residence, Paces Ferry Rd.; brick veneer, stone trim, 2 stories and basement, comp. or slate roof, steam heat; owner builds.

Ga., Augusta—Cornelius Fleming erecting brick veneer residence; whitewashed brick veneer, 2 stories; A. J. Little, Supt., 1915 Walton Way.

Ga., Macon—Mrs. Marshall J. Ellis, 112 Courtland Ave., let contract to W. W. Walther, Hillyer Ave., for brick residence, Stanislaus-on-the-Plaza; hardwood and tile floors, cone. footings, comp. roof, steam heat; Elliott Dunwoody, Archt., 460 Broadway.

La., New Orleans—R. J. Walker, Contr., 2232 Cadiz St., erect duplex, 344 Magnolia St.

La., New Orleans—O'Neil Labeaud, Contr., 3336 Annette St., erect raised double dwelling, Franklin and Lavender Sts.

La., New Orleans—J. M. Couget, Contr., 542 Catina St., erect double dwelling, Colbert St. near Polk St.

La., New Orleans—Union Homestead Assn., 351 Carondelet St., erect \$13,500 bungalow, Broadway and Pitt Sts.; Edw. L. Markel, Contr., 3338 Louisiana Ave. Pkwy.

La., New Orleans—A. K. Jones, 2509 Jasmine St., erect 2 raised single cottages, Wistaria St. near Iris St.; 24x42 ft., asbestos roofs; \$13,500.

La., New Orleans—Miss Catherine Bernard, 1756 N. Rocheblave St., erect double residence, London Ave. near Law St.; owner builds.

La., New Orleans—W. W. Carre, 816 Perdido St., erect double dwelling, Telemachus and Palmetto Sts.

La., New Orleans—Cuevas & Fitzmorris, Contrs., 1632 Dryades St., erect 4 single dwellings.

La., New Orleans—B. J. Mertzweiller, Contr., 2442 Verbena St., erect raised double dwelling, Gladiolas St. near Iris St.

Md., Baltimore—Dr. Edw. C. True erect brick Colonial residence, Charlotte Place near Greenway; Gunn & Orrick Co., Inc., Contr., 306 N. Charles St.

Md., Baltimore—Jas. Keelty, 3529 Edmondson Ave., erect 22 brick dwellings and garages, 800 block Augusta Ave.; 2½ stories, 20 x 35 ft. and 20.6 x 35 ft., steam heat; \$54,000; Fredk. E. Beall, Archt., 306 St. Paul Place; owner builds. 4-4

Md., Baltimore—F. Hatch, Jr., 2846 N. Calvert St., erect \$30,000 residence, 4303 W. Goodale Rd.; stone, 2½ stories; Harold Appleton Stillwell, Archt., 203 N. Davis St.; Peyton B. Strobel Construction Co., Contr., 206 E. Lexington St.

Md., Baltimore—Mary P. Platt, 700 Park Ave., let contract to Thos. Hicks & Son, Inc., 106 W. Madison St., for \$23,000 residence, 201 Goodale Rd.; stone, 3 stories, 41.4x57.8 ft., slate roof; Flournoy & Flournoy, Archts., 306 St. Paul St.

Md., Baltimore—John M. Dukehart erect \$15,000 residence and garage, 725 Brinkwood Rd.; brick, 2½ stories, 40x34 ft. and 19x19 ft., slate roofs, hot water heat; Cyril Hebrank, Archt., 3 E. Lexington St.; Henry T. Sorrell & Sons, Contrs., 4805 Springlake Ave.

Md., Baltimore—John L. Tregellas, Inc., 10 E. Fayette St., erect 3 frame dwellings, 2810-14 Alvarado Square, 1½ stories, 25.6 x 30 ft., steam heat; B. Evander, Archt., 20 E. Lexington St.; owner builds.

Md., Baltimore—C. W. Duvall, 505 E. 41st St., erect 6 brick dwellings, 613-23 Nottingham Rd., after plans by Geo. Wessel, Archt., 601 W. 40th St.; 2 stories, 20x32 ft., slag roofs; \$18,000; owner builds. 4-4

Md., Baltimore—Milton R. Lerch, 5206 Harford Rd., erect 3 frame dwellings and garages 3111-21 Northway Drive; 2½ stories, 24x28 ft., hot water heat; \$13,500; Geo. Wessel, Archt., 601 W. 40th St.; owner builds.

Md., Baltimore—Daniel MacLea, 506 S. Central Ave., let contract to L. L. Chambers, Inc., 36th St. and Roland Ave., for \$40,000 residence, Northway and Greenway; brick, 2½ stories; Palmer & Lambdin, Archts., 513 N. Charles St.

Md., Baltimore—J. T. Menzies, Mr., Crosse & Blackwell, Inc., Eastern Ave. and 41st St., let contract to C. K. Wells, Jr., 3338 Old York Rd., for \$35,000 residence. Churchwardens Rd. and St. Albans Way; brick, 2½ stories; O. E. Adams, Archt., 516 N. Charles St.

Md., Baltimore—H. D. Bartlett, care Bartlett, Poe & Claggett, U. S. F. & G. Bldg., erect \$40,000 residence to replace burned structure; stone, 3 stories; Mott & White, Archts., 347 N. Charles St.; Tase-Norris Co., Inc., 903 Cathedral St., both Baltimore.

Mo., St. Louis—Hauer-Lustkandl Realty Co., 806 Chestnut St., erect 3 model dwellings, Ivanhoe Park; Kirke W. Moses, Contr., 3643 Bowen St. 3-7

Mo., St. Louis—John C. Grenlich Realty & Investment Co., 3111 N. Grand St., erect 25 dwellings, Ingleside subdivision bet. Goodfellow Ave., Kingshighway Blvd. and McLaren Ave.; \$250,000; 25 additional dwellings when above are sold; owner builds.

Mo., St. Louis—J. Chas. Mueller & Sons, 3528 Herbert St., started work on dwelling, Hatherly Drive, Bel-Nor.

Mo., St. Louis—J. A. Franke, 6436 Marmaduke St., erect 3 brick dwellings, 3161-72-78 Hampton St., 1 story, 24x42 ft., rubberoid roofs, hot air heat; \$10,000; owner builds.

Mo., St. Louis—A. P. Rieser, 3800 Federer Place, erect 6 brick dwellings, 3800 block Dover Place; 1 story, 27x45 ft., asphalt shingle roofs, hot air heat; also 2-story dwelling, 3906 Bowen St.; 25x29 ft., asphalt shingle roof, hot air heat; \$25,000; plans and contract by owner.

Mo., St. Louis—Frank S. Hawley, 6023 Waterman Ave., let contract to Geo. C. Smith, 1620 Quendo Ave., for \$20,000 residence, Moorlands; brick, 2 stories and basement, 31 x 50 ft., tile bath, hardwood floors, slate roof, hot water heat; Wm. P. McMahon, Archt., Buder Bldg. 2-28

Mo., St. Louis—Dr. F. J. Pfeffer, 3657 Lafayette St., erect \$12,000 residence, Moorlands Park; brick, 51x28 ft.; owner builds.

Mo., University City, St. Louis—Geo. Clarkson, 2900 N. Union St., erect \$10,000 residence, 7242 Northmoor Drive; brick, 2 stories, 29.8x28.8 ft., slate roof, hot water heat; Gerhard Becker, Archt., 325 Georgia St., Ferguson Jones Bros. Construction Co., Contr., Wells St.

Mo., University City, St. Louis—O. D. Williamson, 7089 Waterman Ave.; 2 stories and basement, 33 x 37 ft., hardwood floors, tile bath, slate roof, hot water heat; work by sub-contract.

Mo., University City, St. Louis—John C. Auffenberg, 1901 Alfred Ave., let contract to Harold M. Neuman, 3968 DeTonty St., for \$12,000 residence, 7128 Stanford Ave.; brick, 2 stories and basement, tile bath, hardwood floors, asbestos shingle roof, hot water heat; Wm. Mampe, Archt., Buder Bldg. 2-14

N. C., Raleigh—C. V. York, Box 306 erecting \$25,000 brick veneer and stucco residence; 2 stories, 66.6x132 ft., oak floors, tile roof; R. J. Barbee, Archt., Lawyers Bldg.; York Construction Co., Contr. 4-4

N. C., Winston-Salem—W. C. Loman, 1247 N. Liberty St., erect \$15,000 residence and garage, Shady Lane; brick veneer, 2 stories, 10 rooms; J. W. Pack, Contr., 128 Wheeler St.

N. C., Winston-Salem—Wachovia Building Co., Nissen Bldg., erect \$15,000 dwelling, Buena Vista Rd.; frame, 2 stories, 9 rooms; owner builds.

N. C., Winston-Salem—W. E. Nicholson, Box 1624, completed foundation for English farmhouse type residence, Lynnhurst Ave.; 1 story, 44x35 ft., hardwood and tile floors, comp. roof; Fowler & Jones, Contrs., Patterson Ave.; plans by Mr. Fowler. 3-14

S. C., Gaffney—Luther B. Smith, care Peoples Drug Store, started work on 2-story residence; O. C. Dorman, Contr.

S. C., Gaffney—Geo. D. Jeffries completed foundation for \$15,000 brick veneer residence, E. Frederick St.; 2 stories and basement, 34 x 48 ft., hardwood floors, Carey asphalt roof; Paul Williams, Archt., Spartanburg; W. T. Duncan, Contr., 810 W. Meadow St., Gaffney. See Want Section—Building Material and Equipment.

Tenn., Memphis—J. B. Hansen, 511 N. Dunlap St., erect \$20,000 residence, Chickasaw Gardens; hollow tile and stucco, 2 stories and basement, oak floors, 3 tile baths, steam heat; R. B. Spencer, Archt., 435 N. Garland St.; J. B. Hansen Co., Inc., Contr., 511 N. Dunlap St.

Tenn., Memphis—Mrs. Lina B. Gragg, 1814 Poplar Ave., erect \$15,000 brick veneer residence, Raleigh Rd.; 2 stories and basement, 10 rooms, 3 tile baths, oak floors, steam heat; B. O. Wright, Contr., 906 Thomas St.

Tenn., Memphis—H. R. Wenzler, 2114 La Salle Place, erect \$10,000 residence, 2219 Jefferson Ave.; brick veneer, 2 stories and basement, 39x32 ft., oak floors, tile bath, comp. roof, hot water heat; R. L. Sieg, Archt., First Natl. Bk. Bldg.; J. A. Haley, Contr., Exch. Bldg.

Tex., Fort Worth—A. L. Bartlett laying foundation for brick veneer residence, 3900 block Hamilton St.; 1 story, 44x58 ft., tile baths, oak floors, comp. roof; R. C. Kinzer, Contr., 703 Griggs St. 2-28

Tex., Fort Worth—Albert G. Stewart laying foundation for brick veneer residence, 3900 block Hamilton St.; 1 story, 44x58 ft.,

oak floors, comp. roof, tile bath; R. C. Kinzer, Contr., 703 Griggs St.

Tex., Fort Worth—Herbert S. Walker, 111½ W. Sixth St., erecting brick veneer residence, 300 Virginia Place; 3 stories, 8 rooms, tile baths, oak floors, comp. shingle roof; owner builds.

Tex., La Ferla—H. H. Rody, let contract at \$16,171 to J. N. Meeks for residence; brick, tile, stucco, rein. conc. and cast stone, conc. tile and wood floors, tile roof; Stanley W. Bliss, Archt., all Harlingen.

Tex., Loveland—W. W. Wills erect \$10,000 bungalow; brick veneer, 7 rooms, built-in features; W. H. Whitescarrugh, Contr.

Tex., San Antonio—John Westerhoff, Milam Bldg., erect 2 dwellings, Zambrano Rd., Terrell Hills; owner builds.

Tex., San Antonio—Floyd T. Snyder, 901 Victoria St., erect dwellings, 928 Avant, 1731-35 Hays, 507-11 Wooley, 234 Hammond and 1731-35 McKinley Sts.; various sizes, frame; \$17,500; owner builds.

Tex., San Antonio—B. C. Meade, Texas Theatre Bldg., erect residence, 1402 Fulton St.; Guaranty Building Corp., Contr.

Tex., Victoria—Sam Gaitz, care Grand Leader Dry Goods Store, purchased homesite, Janes St.

Tex., Winchester—W. G. Hardy, Box 38, let contract to Lewis Person for \$12,500 residence; brick and stucco, 3 stories, 43 x 30 ft., wood floors, conc. foundation, slate roof; Stuart Edmonds, Archt.; drawing plans. See Want Section—Building Material and Equipment. 4-4

W. Va., Parkersburg—Dr. Robt. E. Davis, 213½ Seventh St., erect \$20,000 residence, 1003 Quincy St.; 1 story, 50x52 ft., tile and stucco; J. D. Folwell, Archt.; R. E. Hamrick, Contr., both Union Tr. Bldg.

### Government and State

D. C., Washington—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., let contract at \$13,567,000 to Consolidated Engineering Co., Inc., 20 E Franklin St., Baltimore, Md., for bldg. for Department of Commerce; elevators and dumb waiters, Otis Elevator Co., 810 Eighteenth St., N. W., Washington, at \$544,967; fireproof, stone facing, about 274,000 sq. ft. ground area, 7 stories and basement; York & Sawyer, Archts., 100 E. 42nd St., New York.

Md., Baltimore—Following sub-contracts let on \$750,000 parcel post station for R. D. Brown, care Bishop, Knowlton & Carlton, Archts., 312 N. Meridian St., Indianapolis, Ind.; Limestone, G. Ittenbach Co.; rein. steel sash and double hung windows, Truscon Steel Co., both Indianapolis; wood floor, Jennison-Wright Co., Toledo, O.; cast stone, Benedet Stone Co., 2101 E. Fort Ave.; conc. piles, Raymond Concrete Pile Co., Munsey Bldg.; Consolidated Engineering Co., Inc., Gen. Contr., St. Paul and Franklin Sts., all Baltimore. 3-21

### Hospitals, Sanitariums, Etc.

Ala., Atmore—Atmore Lions Club Hospital Comm. let contract to J. N. Lambert for \$15,000 hospital; 24 beds; Scott & Peters, Archts., Staples-Powell Bldg., Mobile. 2-14

Ala., Huntsville—Monte Sano Construction Co. has donated site for \$150,000 Monte Sano Baby Hospital, Monte Sano; Dr. Joe F. Little, Pres., Citizens Life Insurance Co., raising maintenance fund; structure red sandstone, fireproof, 1 and 2 stories and attic; 40 rooms on first floor. 2-14

Ala., Tuskegee—A. G. Hurt, Tuskegee, has contract for cement work for foundation, etc., for \$275,000 acute bldg., U. S. Veterans Hospital; W. P. Thurston Co., Inc., Contr., P. O. Box 2089, Richmond, Va. 2-28

D. C., Washington—Concrete Steel Co., 2525 Pennsylvania Ave., N. W., Washington, and 42 Broadway, New York, has contract for 125 tons rein. steel for isolation ward, etc., Walter Reed General Hospital, Army Medical Center; Virginia Engineering Co., Inc., 322 Twenty-eighth St., Newport News, Va., gen. contract at \$1,056,765. 1-24

La., Centerville—Field Hospital and Clinic laying foundation for 2-story, 50 x 36-ft. annex; L. T. & R. L. Hille, Contrs.

Miss., Laurel—State Building Coms., New State Capitol, Jackson, let contract at \$19,000 to Bradley Bros., Laurel, for brick dairy barn, brick waiting lodge, frame engineer's house and refrigerators, South Mississippi Charity Hospital; R. C. Springer, Archt., Rosenbaum Bldg., Meridian. 2-28

### Hotels and Apartments

Ala., Mobile—F. Henry Peters erect \$75,000, 2-story and basement, stucco apartment; tile roof, E. A. Sheldon, Contr.; Calvert Scott, Archt., Staples-Powell Bldg.

Fla., Miami Beach—Following sub-contractors awarded on \$100,000 Ocean View Hotel for Van Ness Bros., 116 Fourteenth St., for which Continental Construction Co., Exchange Bldg., Miami, has general contract: Plastering, U. S. Plastering Co.; electric work, Dade Electric Co., 1348 N. E. First Ave.; roofing, Reisner Roofing Co.; plumbing, Markowitz & Resnick, Inc., 2335 N. Miami Ave., all Miami; 3 stories, 88 rooms and bath, semi-fireproof; Wm. F. Brown, Archt., Bastian Bldg. 3-28

Ga., Atlanta—Imperial Hotel, Cecil Cannon expnd \$35,000 for improvements; interior alterations, new lobby, add store units and 9 guest rooms on ground floor, additional baths, redecorate; G. Lloyd Preacher & Co., Archts., Wynne-Claughton Bldg.; day labor under supervision Engineer Phillips. 3-28

Ga., Atlanta—Marvin P. Roane, 491 Seminole Ave., N. E., let contract to C. F. Binder, 1447 LaFrance Ave., N. E., for \$65,000, 2-story and basement, brick veneer, 24-apartment; comp. roof, hardwood and tile floors, steam heat.

Ga., Atlanta—J. H. Whisenant, 2035 Ponce de Leon Ave., N. E., plans to start work in few days an \$50,000, 2-story and basement, brick veneer, 24-apartment on Piedmont Ave., N. E.; comp. roof, hardwood and tile floors, comp. roof, steam heat; owner builds.

Ga., Cordele—Mrs. John Adams erect \$20,000 brick and frame 20-room apartment on 15th Ave., E.; comp. roof; owner builds.

Ga., Cordele—Mrs. R. B. Barfield erect \$10,000 brick and frame apartment; comp. roof, hardwood floors, tiled baths; owner builds.

La., Shreveport—Mrs. Lillie May Wardlow let contract at \$13,532 to M. C. Brown for 2-story frame apartment, 2758-60 Catherine St.

Mo., St. Louis—B. Velde, 3840 Humphrey St., \$25,000, 2-story, 34x94 ft., brick tenement, 4065 Humphrey St.; tar and gravel roof; E. T. Rhodes, Bldr., 345A Grace St.

Mo., St. Louis—Milford Realty Co. erect \$42,500, 3-story, 78x105 ft., brick tenement, 2051-55 Maury St.; tar and gravel roof; Liebowitz Construction Co., Contr., both 4955 Delmar Blvd.

Mo., St. Louis—Spring Park Realty Co., 3800 W. Pine Blvd., let contract to J. J. Robson Construction Co., 3842 Park Ave., for two \$30,000, 3-story, 60-apartments, 3834 and 3848 Park Ave.; Manske & Bartling, Archts., 4526 Olive St.

Mo., St. Louis—S. Rosentrom erect seven 2-story, 22x46 ft., brick tenements, 3141-59 Iowa St.; \$35,000, asphaltum roofs, hot air heat; Gordon-Horen Realty Co., Bldr., both 906 N. Grand Ave.; J. Stauder, Archt., Arcade Bldg.

Mo., St. Louis—A. Koenig, 3425 Nebraska St., has permit for two 2-story, 34 x 50 ft., brick tenements, 3635 Gustine St.; \$20,000, tar and gravel roofs, hot air heat; owner, Archt.-Bldr.

Mo., St. Louis—R. E. Bywater, 5751 Bartner St., erect two 2-story, 34 x 45 ft., brick tenements, 3753 Dunnica St.; \$18,000, tar and gravel roofs, hot air heat; owner, Archt.-Bldr.

Mo., St. Louis—J. M. Wilson 3936 Fairview St., erect \$10,000, 2-story, 38 x 51 ft., brick tenement, 4966 Reber place; gravel roof, warm air heat; owner, Archt.-Bldr.

Mo., St. Louis—F. J. Kurz, 3550 Meramec St., erect \$10,000, 2-story, 29 x 54 ft., brick tenement, 3938-40 Dunnicliff St.; gravel roof, hot air heat, owner, Archt.-Bldr.

N. C., Winston-Salem—Winston-Salem Hotel Co., let contract at about \$400,000 to Angle-Blackford Co., American Exch. Bk. Bldg., Greensboro, for 12-story, 60 x 100 ft., brick, conc. and steel, fireproof, 162-room addition to Robert E. Lee Hotel; W. L. Stoddart, Archt., 50 E. 41st St., New York. 3-28

Ola., Clinton—Calmes & Chandler started work on \$200,000, 6-story, 75 x 140 ft., brick, stone and rein. conc., 100-room hotel; Cowen Construction Co., Contr., Chickasha; Hawk & Parr, Archts., First Natl. Bk. Bldg., Oklahoma City. 4-4

Ola., Oklahoma City—Tankersley Construction Co., Trade Natl. Bk. Bldg., started work on \$300,000 apartment, Laird Ave. and East drive, Lincoln Terrace; 48 suites, equipped with radio, electric refrigeration, steam heat, furnished complete including silverware, linens and dishes, 50-car fireproof garage.

S. C., Aiken—M. E. and B. F. Holley, Prop. of Hotel Aiken, remodel both interior and exterior of hotel and change name to Commercial Hotel; 51 rooms and bath, dining room, kitchen and 5 shops on first floor; provide ladies parlor and lavatory; banquet hall and kitchen on third floor, install 9 passenger elevators, entire building to be stuccoed; C. B. Holley, Contr., Scroggs

& Ewing, Archts., S. F. C. Bldg., both  
Augusta, Ga. 3-14

Tenn., Memphis—L. E. Gleek, 60 Jefferson  
Ave., erect \$20,000, 2-story and basement,  
36 x 70 ft., brick veneer apartment, Summer  
Ave.; comp. roof, wood floors, steam heat;  
Ankler F. Hansen, Archt., Shrine Bldg.

Tenn., Memphis—J. J. Mackey, 1190 N.  
Parkway, started work on \$18,000, 2-story  
and basement, 35 x 64 ft., brick veneer apart-  
ment, 1704 Poplar Ave.; owner, Archt.-Bldr.

Tenn., Memphis—H. Kaplin, 963 New York  
St., soon start work on \$15,000, 2-story and  
basement, 32 x 54 ft., brick veneer apart-  
ment; comp. shingle roof, oak floors, hot  
water heat; owner builds. 2-21

Tenn., Nashville—O. F. Noel Estate, Ex-  
change Bldg., let contract to V. L. Nicholson  
Co., 102 W. Church Ave., Knoxville, for \$1,250-  
000, 12-story, 231-room hotel, Fourth Ave.  
and Church St.; fireproof, steel, conc., brick,  
stone trim; Marr & Holman, Archts., Stahl-  
man Bldg. 3-28

Tex., Corpus Christi—D. E. Clark erect  
\$10,000, 39 x 41 ft., brick veneer apart-  
ment on Park Ave.; J. P. Clark, Contr.

Tex., Fort Worth—Samuel G. Frazer, 523  
S. Adams St., completed foundation for \$15,-  
000, 2-story, 32x60-ft., brick veneer 7-apart-  
ment; oak floors, comp. roof; R. L. Guinn,  
Contr., 3620 Purington St.

Tex., Fort Worth—C. O. Rominger, 754  
Eighth Ave., let contract at \$38,496 to T.  
J. Grady, 302 Cotton Exchange Bldg., for  
2-story and basement, brick and conc., 8-  
apartment, 8th Ave. and Cooper St.; stone  
trim, tile baths, Spanish tile roof, oak floors;  
Ben B. Milam, Archt., 302 First Natl. Bk.  
Bldg. 10-11-28

Tex., Mercedes—Mercedes Hotel, care L. T.  
Hoyt, expend \$20,000 for remodeling 2-story,  
brick and stucco, 60-room hotel; interior  
remodeling, plastering, painting, electric  
wiring, plumbing and bath fixtures, tile  
roof; day labor; W. R. Varner, Archt., Har-  
lingen.

Va., Richmond—Virginia Ice Machine Corp.,  
3115 Westhampton Ave., local representatives  
of Frick Co., Waynesboro, Pa., has contract  
to furnish and install 40-ton Frick refriger-  
ator and ice-making plant in \$2,000,000 John  
Marshall Hotel under construction for Rich-  
mond Hotels, Inc., Thos. Gresham, Pres.;  
Wise Granite & Construction Co., Inc., Gen.  
Contr.; Marcellus E. Wright, Archt., all Am.  
Natl. Bk. Bldg. 3-14

### Miscellaneous

Fla., Miami—C. A. Roberts, of Roberts &  
Grenther, has permit for \$15,000, 40 x 150 ft.,  
swimming pool and dance floor, N. W. 20th  
St. and 6th court; C. M. Miller, Contr.

Ga., Atlanta—H. I. Kamball Co. started  
work on remodeling The Kimball House;  
\$20,000; George A. Clayton Co., Contr., Bona  
Allen Bldg.

### Schools

Ala., Birmingham—Virginia Bridge & Iron  
Co., Box 925, Roanoke, Va., has contract for  
275 tons struc. steel for stadium at Wood-  
lawn High School. 2-7

Ala., Sulligent—Lamar County Bd. of  
Education, let contract at \$46,350 to A. B.  
Bearden & Son, Birmingham, for 1-story,  
brick school to replace recently burned struc-  
ture; 242 ft. frontage, 6 classrooms, home  
economics department, auditorium.

Ark., Little Rock—North Little Rock  
Special School Dist., W. H. Phipps, Supt.,  
let contract at approx. \$89,000 to William  
Peterson Co. for auditorium at \$500,000 high  
school under construction by same company;  
Geo. R. Mann, Wagner & King, Archts.,  
New Donaghey Bldg. 11-29

D. C., Washington—Mount Vernon Semi-  
nary has permit for \$20,000, 1-story frame  
gymnasium, 4121 Quebec St.; also \$4500,  
1-story brick field house, 4101 Quebec St.,  
N. W., Wm. P. Lipscomb Co., Contr., Dist.  
Natl. Bk. Bldg., Washington; W. S. Bessell,  
Archt., 58 W. 49th St., New York.

Fla., West Palm Beach—Palm Beach County  
Bd. of Public Instruction let contract  
about \$20,000 to Southern States Construc-  
tion Co., Delray, for 6 schools—Boca Raton,  
Delray, Pahokee, Belle Glade, South Bay  
and shop at Industrial High at West Palm  
Beach; Wm. Manley King, Archt., Harvey  
Bldg.

Ky., Bristow—Warren County Bd. of Education,  
G. R. McCoy, Supt., Bowling Green, let  
contract at \$18,760 to Thomas J. Murphy  
& Brother, Bowling Green, for 2-story brick  
and stone school in Bristow Consolidated  
School Dist.

La., Marksville—Avoyelles Parish School  
Bd. let contract at \$34,379 to Tudor & Rat-  
cliff, Alexandria, for 2-story, rein. conc.,

brick, stone trim high school in First Ward;  
built-up comp. roof, steam heat; Wm. T.  
Nolan, Archt., Canal Bk. Bldg., New Orleans. 3-14

Miss., Hattiesburg—State Building Coms.,  
W. C. Trotter, Sec., New State Capitol Bldg.,  
Jackson, let contract to Oden & Glenn Hat-  
\$100,000 dining hall, \$125,000 auditorium,  
tiesburg, for \$160,000 administration building,  
Co., Biologix; heating and plumbing,  
ers College; wiring, Biologix Plumbing & Heat-  
\$9000 power house at Mississippi State Teach-  
Alonzo B. Hayden, Inc., Pass Christian; Vinson B. Smith, Jr., Archt., Bank of Gulf-  
port, Gulfport. 2-21

Mo., Clayton, St. Louis—Bd. of Education,  
J. L. Bracken, Supt., 7500 Henderson Ave.,  
let contracts at \$15,125 and \$31,588 to Duffner  
& Stecker Construction Co., DeMenil Bldg.,  
for 3-story and basement, brick and rein.  
cone, addition to high school, Maryland and  
Jackson Aves., and 2-story and basement,  
44 x 38 ft., brick, rein. cone, fireproof addition  
to DeMenil School respectively; at \$43,-  
265 to E. A. Brunson Construction Co., Ry.  
Exchange Bldg., for 2-story and basement,  
88 x 38 ft., brick, rein. cone, Moorlands  
School; Wm. B. Ittner, Archt., Bd. of Education  
Bldg. 3-21

Mo., Maplewood, St. Louis—Sodeman Heat-  
ing & Power Co., 2306 Morgan St., has  
heating contract at \$34,835 for \$250,000, 2  
and 3-story, 146 x 213 ft., brick, rein. cone.  
Sr. High School under construction; Clamp-  
Pfehn Plumbing Co., 111 W. Lockwood Ave.,  
Webster Groves, has contract at \$18,000 for  
Plumbing; E. A. Brunson Construction Co.,  
Gen. Contr., Ry. Exchange Bldg., Wm. B.  
Ittner, Archt., Bd. of Education Bldg. 1-31

Va., Blacksburg—Virginia Polytechnic In-  
stitute, Dr. J. A. Burruss, Pres., let contract  
at \$14,150 to Slusher & Leighton, Christians-  
burg, for 2-story, brick, fireproof addition  
to infirmary; Carneal, Johnston & Wright,  
Archts., Electric Bldg., Richmond. 2-7

Va., South Norfolk, Norfolk—School Bd.  
R. H. Price, Supt., let contract to John W.  
Hudson, Raleigh, N. C. for \$119,000, 2-story,  
241x195 ft., brick high school, Holly and  
Decatur Sts.; equipment, \$20,000; 12 class-  
rooms, auditorium to seat 1000 people; B.  
F. Mitchell, Archt. associated with Rudolph,  
Cook & Van Leeuwen, Arcade Bldg.; W. O.  
Sherman, Consrt. Engr., 508 McKeivitt Bldg.

3-14

### Stores

Ala., Gadsden—Ben Cheeseman, Birming-  
ham, started work on 50x125-ft. brick store  
on E. Broad St.; J. M. Myrick, Contr.

Fla., Lake City—Dr. E. W. Edwards let  
contract to H. A. Paasche for jewelry store  
on E. Hillsborough St.

Ga., Atlanta—Following sub-contracts  
awarded on \$500,000 annex under construction  
to Sears, Roebuck & Co., L. H. Beall,  
Mgr., Atlanta branch; B.-W. Construction  
Co., Gen. Contr., 720 Cass St., Chicago; Fire  
doors, Variety Fire Door Co., Rhodes Bldg.;  
steel rolling doors, Kinneair Manufacturing  
Co., 101 Marietta St.; cement, common and  
face brick, Cromer & Thornton, Inc., 215  
Decatur St.; excavation, Burton F. Wil-  
liams, 906 Church St.; sand and gravel,  
Atlanta Aggregate Co., 721 Angier Ave. N. E.;  
rein. steel, Kalman Steel Co., Candler Bldg.,  
all Atlanta; column forms, Corr Service Erec-  
tion Co., 410 N. Michigan Ave.; cut stone,  
Capitol Stone Co., 228 N. LaSalle St.; spirals,  
American System of Reinforcing, 7 S.  
Dearborn St.; caissons, The Gow Co., all  
Chicago; struc. steel, Virginia Bridge & Iron  
Co., Roanoke, Va.; Nimmons, Carr & Wright,  
Archts., 333 N. Michigan Ave., Chicago. 2-7

Ga., Atlanta—A. A. McCord, 48 Marietta  
St., erect \$12,000, 1-story and basement, 65 x  
70 ft., brick store, 597-601 Highland Ave.,  
N. E. built-up roof; owner, Archt.-Bldr.

Ga., Atlanta—S. M. Goldberg and associates,  
Grant Bldg., let contract to The Flagler Co.,  
care Morgan, Dillon & Lewis, Archts., Red  
Rock Bldg., for \$200,000, 2-story and  
basement, 100 x 100 ft., rein. conc., struc.  
steel, brick and tile, stone trim, fireproof,  
5-story building, 201-09 Peachtree St.; bronze  
fronts, plate glass, hardware, tile and rubber  
tile floors, 5-ply tar and gravel roof, steam  
heat. 3-14

Ga., Cordele—B. F. Sheppard erect \$10,000  
brick store and garage; built-up roof; owner  
builds.

La., Shreveport—H. G. Hodges, 238 Pros-  
pect Ave., has contract at \$10,916 for re-  
modeling 2-story brick building, 409 Texas  
St., to be occupied by J. C. Penny Co., Inc.,  
330 W. 34th St., New York.

Md., Baltimore—Baltimore-Washington  
Realty Co., W. K. Bachrach, 16 E. Lexing-  
ton St., let contract to E. Eyring & Sons,  
807 S. Third St., for \$30,000, 2-story, brick  
store and telephone office, 3795-09 Liberty  
Heights Ave.; L. R. White, Archt., Hearst  
Tower Bldg. 2-28

W. Va., Parkersburg—Julia Nathan erect-  
ing \$45,000, 44x96 ft., brick store, 7th and  
Green Sts.; Plate Construction Co., Contr.,  
726 Jeannette St.; J. D. Folwell, Archt.,  
Union Tr. Bldg.; Sears, Roebuck & Co.,  
Lessee, Chicago.

### Warehouses

La., Monroe—Dixie Roofing Co., Inc., 119  
N. Grant St., let contract to W. C. Salley,  
for \$10,000, 1-story brick office and ware-  
house, Walnut and Bredard Sts.; J. W. Smith  
& Associates, Archts., Ouachita Bk. Bldg. 3-7

Mo., St. Louis—J. A. Mrazek, 1509 S. 12th  
St., erect \$10,000 40 x 44 ft., brick addition  
to 2-story office and warehouse, 3664 Gravois  
Ave.; comp. roof; W. C. Harting Construction  
Co., Bldg., 722 Chestnut St.; C. Prokes,  
Archt., 4838 Terrace.

S. C., Hartsville—Southern Builders,  
Florence, S. C., have contract for 135x150 ft.,  
metal warehouses for Coker Pedigreed Seed  
Co. and Hartsville Tobacco Co.; 27-ft. drive  
way between. 1-3

Tenn., Memphis—Spang, Chalfant & Co.,  
Inc., Clark Bldg., Pittsburgh, Pa., let contract  
to James Hamilton, 1996 Higbee St., for  
104 x 160 ft., warehouse; mill construction.

### Trade Literature

**Graders.**—The 1929 model Austin Mammoth  
Senior leaning wheel grader, with tele-  
scopic axle and disc wheels, is the subject  
of a comprehensive folder issued by the  
Austin-Western Road Machinery Company,  
Chicago, Ill., which also will supply special  
literature on graders of many kinds, dump  
wagons, motor rollers, pup rollers, scar-  
ifiers, gyratory crushers, road drags, hot  
patch outfits, street sweepers, water sprink-  
lers, and so on. The company has branch  
offices in several cities.

**Conveying Equipment.**—Nearly 200 large  
pages of information on Richards-Wilcox  
Over-R-Way conveying equipment form a new  
catalog, No. 50, issued by the Richards-  
Wilcox Manufacturing Company, Aurora, Ill.,  
door hangars, hardware specialties, etc. Dia-  
grams, specification and illustrations sup-  
plement the printed details covering a wide  
range of appliances and devices. The com-  
pany states that it will give any further  
information on request.

**Steel Pipe.**—Copper-bearing steel pipe  
forms the subject of No. 11, first edition, of  
"National" Bulletin, copyrighted and issued  
by the National Tube Company, Pittsburgh,  
Pa. Results of tests are given in word  
and tables and pictures, and the state-  
ment is made that representatives of the  
company will be glad to discuss the sub-  
ject with architects, engineers, railroad ex-  
ecutives, mechanical men, oil and gas men  
and others, and to give counsel and advice.

**Heating Specialties.**—An attractive and  
comprehensive booklet has been issued by  
the Trane Company, LaCrosse, Wis., to tell  
about a number of its products, including  
Trane heat cabinets, described as provid-  
ing particularly quick and clean heating,  
with instantaneous control of heat. Dia-  
grams, specifications, tables and illustrations  
illuminate the subject. Trane vent valves,  
return traps, damper regulators and other  
devices also are described.

**Waterwheels.**—The manufacture of Leffel  
waterwheels is presented in Bulletin W-201  
issued by the James Leffel & Co., Spring-  
field, Ohio, details of the work being shown  
in word and picture. "All the resources of  
the Leffel organization are at your service  
and Leffel engineers are as near to you as  
our nearest branch office," says the com-  
pany.

# WANT SECTION

## THE CLASSIFICATIONS IN THIS SECTION ARE:

### Machinery and Supplies

Under this heading are reported requests for data, prices and literature and information on machinery, supplies and miscellaneous materials of a wide variety.

*Items in this department are published without charge and these columns are open for the publication of wants of all kinds relating to construction work, machinery, materials and supplies.*

### Building Materials and Equipment

This division comprises all classes and kinds of materials and equipment used in building and construction projects of every kind.

### Bids Asked

Includes bids asked by U. S. Government, States, districts, municipalities, firms and individuals for machinery, materials, supplies and construction work.

### Machinery and Supplies

**Brick Manufacturing Machinery.**—Thos. Self, Crockett, Tex.—Plans installing complete brick manufacturing plant and wants prices and data on brick manufacturing machinery.

**Canning Machinery.**—E. E. Mitchell, Jr., Toccoa, Ga.—Wants prices and data on machinery and equipment for small canning plant.

**Cotton Bolling Machine.**—Farmers Gin Co., Salem, Ark.—Wants cotton bolling machine with cleaners.

**Diesel Engine.**—Farmers Gin Co., Salem, Ark.—Wants 15 h.p. or 20 h.p. used Diesel engine; good condition.

**End Matcher.**—R. P. Johnson (Mchy. Dealer), Wytheville, Va.—Wants prices and data on used end matcher.

**Gears (Fibre).**—J. G. Newkirk & Co. (Contractors), Eldorado, Ark.—Wants prices and data on fibre gears.

**Grinding and Manufacturing Machinery.**—R. A. Hay, Box 1330, San Antonio, Tex.—Plans development of clay deposits for ceramic and brick manufacture and wants data and prices on grinding and manufacturing machinery.

**Heading Mill.**—Ludowici Stave Co., Ludowici, Ga.—Wants prices and data on used heading mill, complete.

**Oil Burners.**—Holland & Beaman Co. (Building Supplies Div.), Suffolk, Va.—Wants prices and data on oil burners for home heating.

**Tractors and Carts.**—S. H. Young, 426 W. Concord Ave., Orlando, Fla.—Wants prices and data on small kerosene burning field tractors and carts for handling sugar cane in Central America.

**Allegheny Tube & Steel Co.**, 1304 N. Main St., St. Louis, Mo.—Wants prices and data on following used equipment:

(1) **Gang Nut Tappers**—Acme,  $\frac{1}{2}$ -in., 6-spindle

(2) **Screw Machine (Automatic)**—5, No. 55 National Acme, 4-spindle.

R. P. Johnson (Mchy. Dealer), Wytheville, Va.—Wants prices and data on following:

(1) **Grader**—8-ft., medium

(2) **Tractor**—5 to 7-ton, crawler type.

Shreveport Machinery Sales Co., Box 840, Shreveport, La.—Wants prices and data on following:

(1) **Bucket (Clam Shell)**—2,  $2\frac{1}{2}$ , or 3-yd.

(2) **Hoist**—60-h.p. or larger, electric, 3-drum and boom swinger.

W. M. Smith & Co., Birmingham, Ala.—Wants prices and data on following:

(1) **Lathe**—60-in. swing, 20 ft. between centers, or 54-in. swing, 17 or 18 ft. between centers

(2) **Magnet**—mushroom type, 36 to 60-in.

T. W. Dowda, Route No. 1, Newcastle, Tex.—Wants prices and data on following for flour mill:

(1) **Elevator Cups**

(2) **Water Wheels**—over-shot.

### Miscellaneous.

**Mailing Tubes.**—Roy Stibbs, Route No. 1, Burbank, Ohio—Wants prices and data on paper mailing tubes.

Nueces County Water Dist. No. 1, E. E. Ludewig, Pres., 715 Leopard St., Corpus Christi, Tex., improving water and gas pipe lines and wants prices on following:

**Gas Meters**

**Water Meters**

**Booster Plant.**

**Tower (Observation).**—Shenandoah Caverns Corp., Shenandoah Caverns, Va.—Wants prices and data on used steel observation tower.

B. H. Faber, City Engr., Smithville, Tex.—Wants data and prices on following:

(1) **Road roller**

(2) **Asphalt distributors**

(3) **Street signs**

(4) **Street lighting**

(5) **Asphalt heaters.**

### Building Material and Equipment.

English Construction Co., Inc., 1311 H St., N. W., Washington, D. C., interested in building hollow tile silos, wants data.

Bob Prickett, Belzoni, Miss., wants prices on steel buildings suitable for barns, garages, etc., all steel construction, frame work included.

W. G. Hardy, Box 98, Winchester, Va., wants prices on following for \$12,500 residence:

#### Electric Refrigerators

#### Flooring—hardwood, tile

#### Incinerator

#### Plaster Board

#### Roofing (hip)—slate.

O. H. Hennessee, 683 Juniper St., Atlanta, Ga., wants prices on following for \$25,000 apartment:

#### Cast stone

#### Electric Refrigerators

#### Flooring—hardwood, linoleum, tile

#### Mail Chutes

#### Roofing—built-up

#### Skylights

#### Ventilators

G. R. Berriman, Archt., Odd Fellows Bldg., Raleigh, N. C., wants prices on following for \$45,000 school, Greenville, N. C.:

#### Flooring—tile

#### Tile—hollow

#### Terra Cotta trim.

Harvey L. Page, Archt., 206 Crescent St., Alamo Heights, San Antonio, Tex., wants prices on following in connection with remodeling theatre for 4-story department store:

#### Cast Stone

#### Elevators

#### Flooring—Travertin (for first floor)

#### Marble

#### Metal Doors

#### Sprinklers

#### Steel Sash and Trim

#### Tile—gypsum.

Haralson & Nelson, Archts., Merchants Natl. Bk. Bldg., Fort Smith, Ark., wants prices on following for \$42,500 school, Mulberry, Ark.:

#### Cast Stone

#### Flooring—hardwood

#### Roofing—built-up.

Turner & Slater, Archts., 1212 Martin Bldg., Birmingham, Ala., want prices on following for 2-story apartment, Montevallo, Ala.:

#### Cast Stone

#### Electrical Refrigerators

#### Flooring—hardwood, tile

#### Metal Doors

#### Roofing—asphalt shingle

#### Tile—hollow concrete.

G. Rountree Crisp, 201 W. Washington Ave., Kinston, N. C., wants prices on following for \$10,000 residence:

#### Electric Fixtures

#### Electric Refrigerators

#### Flooring—hardwood, linoleum, tile

#### Incinerator

#### Mail Chutes

#### Plumbing Fixtures

#### Roofing—asbestos shingle, asphalt shingle

#### Steel Sash and Trim

#### Ventilators.

R. F. Coffey, Boone, N. C., wants prices on following for \$35,000 Sunday school:

#### Cast Stone

#### Flooring—hardwood

#### Limestone

#### Plaster Board

#### Rolling Partitions

#### Roofing (flat)—built-up

#### Vaults

#### Vault Lights

#### Ventilators.

Anthony DeH. Zink, Archt., Seybold Bldg., Miami, Fla., wants prices on following for \$10,000 dwelling, Miami Beach:

#### Cast Stone

#### Electric Refrigerators

#### Flooring—hardwood, tile

#### Roofing (hip)—tile

#### Steel Sash and Trim.

Carl V. Seutter & Malcolm G. Simons, Asso. Archts., Builders Exch. Bldg., San Antonio, Tex., want prices on following for \$70,000 branch library:

#### Cast Stone

#### Flooring—tile

#### Metal Doors

#### Roofing (flat)—built-up

#### Steel sash

#### Tile—hollow

#### Ventilators

#### Brass and Bronze Work.

M. A. Long Co., Contr., 10 W. Chase St., Baltimore, Md., wants prices on following for \$75,000 rectory:

#### Flooring—hardwood, linoleum, terrazzo, tile, composition

#### Incinerator

#### Marble

#### Roofing—tile.

Chas. T. Boelhauwe, Archt., Aztec Bldg., San Antonio, Tex., wants prices on following for \$20,000 comfort station:

#### Cast Stone

#### Flooring—tile

#### Marble

#### Metal Doors

#### Roofing (flat)—promenade tile

#### Steel Sash and Trim

#### Tile—interior

#### Vault Lights

#### Ventilator Fans.

Harry A. Miller, Archt.-Engr., 4430 Park Ave., Kansas City, Mo., wants prices on following for \$35,000 apartment and laundry for Edward F. Kennedy, Harrisonville, Mo.:

#### Cast Stone

#### Electric Refrigerators

#### Flooring—hardwood, terrazzo, tile

#### Roofing (flat)—built-up, tile

#### Steel Sash and Trim

#### Tile—gypsum (interior partitions)

Sunset Ice Delivery, 606 W. Myrtle St., San Antonio, Tex.—Wants equipment for ice delivery business, including:

#### (1) Trucks

#### (2) Route Checking Systems

#### (3) Sales Plans.

W. T. Duncan, Contr., 810 W. Meadow St., Gaffney, S. C., wants prices on following for \$15,000 dwellings:

#### Flooring—tile.

Geo. H. Burden Co., Contr., Moore & Turner Bldg., Little Rock, Ark., wants prices on following for \$200,000 bank and office bldg.:

#### Elevators

#### Flooring—hardwood, linoleum, terrazzo, tile

#### Limestone

#### Mail Chutes

#### Marble

#### Metal Doors

#### Roofing—built-up

#### Tile—gypsum, hollow

#### Brass and Bronze Work.

### Bids Asked

**Bakery Equipment.**—Navy Dept., Bureau of Yards and Docks, Washington, D. C.—Bids May 1 for electric ovens, flour-handling equipment, divider, etc., delivery Quantico, Va.

**Batteries.**—Post Office Dept., Purchasing Agt., Washington, D. C.—Bids Apr. 20 for 2,000 dry cell batteries.

**Blankets.**—Marine Corps, Q. M. Dept., Washington, D. C.—Bids May 1 for furnishing 10,000 green woolen blankets, delivery Philadelphia, Pa.

**Boiler Feed Pump.**—Bd. of Public Works, Nashville, Tenn.—Bids Apr. 16 for furnishing water works department, f.o.b., side track pumping station, with boiler feed pump.

**Boiler Tubes.**—U. S. Engr. Office, Huntington, W. Va.—Bids Apr. 18 for boiler tubes.

**Bridges.**—Houston, Tex.—Bids for 2 bridges. See Construction News—Bridges, Culverts, Viaducts.

**Cement.**—Director of Public Works, Richmond, Va.—Bids Apr. 15 for approx. 60,000 bbls. cement.

**Cloth.**—Marine Corps, Q. M. Dept., Washington, D. C.—Bids May 3 for furnishing

## CONSTRUCTION DEPARTMENT

## Manufacturers Record

40,000 yd. Italian green cloth, 330 yd. scarlet cloth and 300 yd. dark blue serge, delivery Philadelphia, Pa.

**Cloth and Lining.**—Marine Corps, Q. M. Dept., Washington, D. C.—Bids Apr. 22 for cloth and lining, delivery Philadelphia, Pa.

**Coats and Gauntlets.**—Marine Corps, Q. M. Dept., Washington, D. C.—Bids Apr. 18 for 800 sheepskin coats and 1700 pairs horse-hide gauntlets, delivery Philadelphia, Pa.

**Conduit (Clay).**—Bd. of Awards, care City Register, City Hall, Baltimore, Md.—Bids Apr. 17 for 100,000 ft. more or less, of 4-way vitrified clay conduit.

**Culverts.**—Wichita Falls, Tex. See Construction News—Bridges, Culverts, Viaducts.

**Dragline.**—County Auditor of Dallas County, Dallas, Tex.—Bids Apr. 22 for new or used crawler type dragline, 40-ft. boom,  $\frac{1}{4}$ -yd. capacity, and bucket complete.

**Dredging.**—U. S. Engr. Office, Norfolk, Va.—Bids May 4 for dredging and disposing of approx. 7,000,025 cu. yd. of material in widening Norfolk Harbor, 40-ft. channel between Hampton Roads and junction of Southern and Eastern Branches of Elizabeth River.

**Feed Water Heater and Pump.**—U. S. Engineer Office, Vicksburg, Miss.—Bids April 15 for boiler feed water heater and boiler feed water pump.

**Fire Extinguishers.**—U. S. Engr. Office, Huntington, W. Va.—Bids Apr. 19 for fire extinguishers.

**Generator Set.**—U. S. Engr. Office, Vicksburg, Miss.—Bids April 15 for 3 kw. turbine generator set.

**Gravel.**—Thibodaux, La. See Construction News—Roads, Streets, Paving.

**Gravel, etc.**—Louisiana Highway Comm., L. R. Ames, Engr., Baton Rouge, La.—Bids Apr. 30 for washed and screened gravel, 40% and 50% sand-clay gravel, reef shell, clam shell, crushed limestone, slag and sand, for maintenance dept. during May.

**Heaters and Radiators.**—Marine Corps, Q. M. Dept., Washington, D. C.—Bids Apr. 18 for 2 heaters and 14 radiators, various sizes, delivery Port Royal, S. C.

**Heating System.**—Bd. of Awards, Office of City Register, City Hall, Baltimore, Md.—Bids Apr. 17 for furnishing and installing steam heating system in Bergner Mansion, Gwynns Falls Park.

**Hull (Steel).**—U. S. Engr. Office, Nashville, Tenn.—Bids Apr. 15 for steel hull for dipper dredge, Kentucky.

**Leather (Backs, Russet).**—Marine Corps, Q. M. Dept., Washington, D. C.—Bids Apr. 24 for 10,000 sq. ft. leather, backs, russet, delivery Philadelphia, Pa.

**Machine Shop Equipment.**—Navy Dept., Bureau of Supplies and Accounts, Washington, D. C.—Bids Apr. 16 for engine, precision and turret screw lathes and gang-punch; bids Apr. 23 for milling machines and 25-ft. vertical boring mill machine.

**Miscellaneous.**—Panama Canal, A. L. Flint, Gen. Pur. Officer, Washington, D. C.—Bids Apr. 20 for following, Sch. 2482: metal filing cabinets, pneumatic paving breaker, potential transformers, phosphor bronze wire, copper wire, steel tubing, bar copper, etc.

**Miscellaneous.**—Panama Canal, A. L. Flint, Gen. Pur. Officer, Washington, D. C.—Bids Apr. 17 for following, Sch. 2481: Chain, machine bolts, brass nuts, taps, magnet wire, electrical appliance cord, conduit elbows, welding rods, silver anodes, refractories, etc.

**Miscellaneous.**—Gen. Pur. Officer, Panama Canal, Washington, D. C.—Bids April 26 for following: Sch. 1954:

Dump trucks, steam boilers, gasoline engines, burial caskets, sanitary fixtures, glass harness, leather, etc.

**Miscellaneous.**—Chemical Warfare Service, Edgewood Arsenal, Md.—Bids April 16 for 10,000 common red brick, 600 fire bricks, 5000 lbs. wall plaster, 1000 lbs. fire clay, 3000 lbs. of white finish and 300 ft. of 6-in. t. c. pipe: April 13 for electric supplies, including 8500 ft. conduit, 13,000 ft. solid wire; 4500 ft. stranded wire; 1000 ft. rein. cord, sockets, outlets, etc.

**Paving, etc.**—Baltimore, Md.—See Construction News—Roads, Streets, Paving.

**Pipe (Furnace).**—U. S. Engr. Office, Huntington, W. Va.—Bids Apr. 20 for furnace pipe.

**Poles (Chestnut).**—Director of Public Utilities, Richmond, Va.—Bids Apr. 10 for year's supply of chestnut poles for city electric plant.

**Ranges (Gas).**—Q. M. Supply Officer, Washington, D. C.—Bids Apr. 29 for 500 gas ranges.

**Road.**—Oakland, Md. See Construction News—Roads, Streets, Paving.

**Road.**—Thibodaux, La. See Construction News—Roads, Streets, Paving. Apr. 20 for following, Sch. 2482: metal filing cabinets, pneumatic paving breaker, potential transformers, phosphor bronze wire, copper wire, steel tubing, bar copper, etc.

**Road.**—Paducah, Ky. See Construction News—Roads, Streets, Paving.

**Road.**—Fairmont, W. Va.—See Construction News—Roads, Streets, Paving.

**Roads.**—State of Louisiana. Bids for 9 roads. See Construction News—Roads, Streets, Paving.

**Roads.**—State of West Virginia—Bids for 16 roads. See Construction News—Roads, Streets, Paving.

**Roads.**—State of Texas. Bids for 10 roads. See Construction News—Roads, Streets, Paving.

**Roads.**—State of Maryland. Bids for 6 roads. See Construction News—Roads, Streets, Paving.

**Roads.**—State Highway Dept., Dover, Del.—Bids May 7 for 3 roads: Cont. No. 118—4.3 mi. Dexter's Corner to Delaney, 23,000 cu. yd. excavation and borrow, 3800 cu. yd. cement conc. pavement, 2400 lb. rein. steel, 6000 lin. ft. wood shoulder curb; No. 121—3.96 mi. Wendel's Corner to Woodland Beach, 29,000 cu. yd. excavation and borrow, 3480 cu. yd. cement conc. pavement, 4000 lb. rein. steel, 6000 lin. ft. wood shoulder curb; Cont. CS-60, 3 mi. Bacon Station toward Smith Mill, 21,500 cu. yd. excavation and borrow, 2630 cu. yd. cement conc. pavement, 8500 lb. rein. steel, 4500 lin. ft. wood shoulder curb.

**Road Maintenance Equipment.**—State Highway Comm., Ben M. Sawyer, Ch. Highway Commr., Columbia, S. C. Bids Apr. 15 to furnish certain tractors, graders, motor trucks and other maintenance equipment.

**Roofing.**—Chemical Warfare Service, Edgewood Arsenal, Md.—Bids April 16 for 1200 rolls red slate covered roofing.

**Roofing Slate.**—Comms. Dist. of Columbia, Washington, D. C.—Bids April 23 for 100,000 pieces 6x16-in. roofing slate.

**Screens.**—Q. M. Walter Reed General Hospital, Army Medical Center, Washington, D. C.—Bids April 15 for window screen, transom screens, double door screens, transom door screens.

**Sewers.**—Town Commr., Greensboro, Md., Irvin Brumbaugh, Sec.-Treas.—Bids April 22 for constructing 3000 ft. of 8-in. storm water drains, together with manholes and appurtenances Kastenhuber & Anderson, Engrs., P. O. Box "R", Easton, Md.

**Sheepskins, Buckles, etc.**—Marine Corps, Q. M. Dept., Washington, D. C.—Bids Apr. 23 for furnishing sheepskins, buckles, etc., delivery Philadelphia, Pa.

**Stone Curb and Circles.**—Bd. of Awards, Baltimore, Md.—Bids Apr. 17 for 1000 lin. ft. straight stone curbs; 3600 lin. ft. curb circles; Nathan L. Smith, Highways Engr.

**Stone.**—Chemical Warfare Service, Edgewood Arsenal, Md.—Bids Apr. 16 for 250 tons crushed stone.

**Street.**—Huntington, W. Va. See Construction News—Roads, Streets, Paving.

**Street.**—Birmingham, Ala. See Construction News—Roads, Streets, Paving.

**Street.**—Bamberg, S. C. See Construction News—Roads, Streets, Paving.

**Tape (Cotton).**—Marine Corps, Q. M. Dept., Washington, D. C.—Bids Apr. 24 for 200,000 yd. kahki cotton tape, delivery Philadelphia, Pa.

**Tapestry.**—Marine Corps, Q. M. Dept., Washington, D. C.—Bids Apr. 16 for 300 yds. of tapestry, delivery Quantico, Va.

**Tires and Tubes.**—Marine Corps, Q. M. Dept., Washington, D. C.—Bids Apr. 16 for tires and tubes, delivery Philadelphia, Pa.

**Truck.**—Marine Corps, Q. M. Dept., Washington, D. C.—Bids Apr. 17 for light delivery truck,  $\frac{1}{2}$ -ton, pick-up type, delivery St. Paul, Minn.

**Welding Torches.**—U. S. Engr. Office, Huntington, W. Va.—Bids Apr. 20 for welding torches.

## INDUSTRIAL NEWS OF INTEREST

Items of news about industrial, railroad or financial interests, building operations, construction work, municipal improvements, or the sale of machinery or the letting of contracts in the South or Southwest, are invited from our readers, whether they are advertisers, or subscribers, or not. We invite information of this character from readers in the North and West about their Southern business operations, as well as from Southern readers. News of value will be published just as readily when from non-advertisers as from advertisers.

## Southern Pacific Report.

Net income of the Southern Pacific Company transportation system and of all separately operated solely controlled affiliated companies, combined, is given as \$39,876,657.28 in the report of the directors for 1928, as published in this issue of the Manufacturers Record. This figure represents an increase of 10.77 per cent over 1927. The credit balance on December 31 was \$504,124,000, compared with a total corporate surplus of \$480,186,890 in 1927. Net railway operating income is given as \$54,908,000, an increase of 6.4 per cent, and of the \$39,028,000 of net income \$1,494,000 was applied to sinking and other reserve funds, \$8,500 to investment in physical property and an income balance of \$37,452,000 was transferred to credit ond profit and loss. Train miles of freight service ran to 28,674,532, an increase of 3.72 per cent, and passenger service train miles ran to 26,412,863, or 3.31 per cent decrease.

## Property to Be Sold.

Opportunity for the purchase of property, especially suitable for a brick, sewer pipe, fireproofing or similar plant, is offered in this issue in an advertisement by R. H. Gordon and G. H. Johnston, receivers, Bowerton, Ohio, where the property is situated. The property includes 75 acres of shale and clay, on two railroad main lines. All laboratory tests and finished products are reported to have proved of highest type. The property will be sold at public sale on Saturday, April 20, and suggestions for possible financing are advanced in the advertisement.

## Opens His Own Agency.

Spencer A. Jones has resigned from the American Wholesale Corporation, Baltimore, where he was assistant sales manager and advertising consultant, and has started an advertising agency under his own name in the Equitable Building, Baltimore. Mr. Jones was formerly with the Newell-Emmett Company, New York advertising agency, and with the Botsford-Constantine Company, Seattle, Wash., advertising agency. He intends to specialize on accounts dealing with things mechanical, electrical, chemical and structural. Among the accounts he has handled are Johns-Manville Corporation, West Coast Lumber Bureau, Laminex Doors, Florida Dense Long Leaf Pine Manufacturers, Noark Fuses and Boeing Airplane Company. Prior to entering the advertising profession, he was invention engineer with the Grasselli Chemical Company, Cleveland, and assistant chief engineer with the International Nickel Company, Bayonne, N. J. Richard S. Kendrick, formerly of the Florida Dense Long Leaf Pine Manufacturers, will be associated with Mr. Jones as a copy and contact man.

## Southern Made Valves.

Nine 24-inch cast iron water valves recently shipped to the city of Mobile by the M. & H. Valve & Fittings Company, Anniston, Ala., are said to be the first valves of their size and weight to be made in the South. The company also shipped seven carloads of valves to New York, ranging from four to 16 inches in size. Whitfield Clark is president, L. C. Watson is secretary-treasurer and William Edwards is plant manager.

**Represents Manufacturers of Road Machinery**

Stuart M. Christhifl & Co., 205 Snow Bldg., Baltimore, have been appointed Maryland representative of the Lakewood Engineering Co., Cleveland, Ohio, manufacturers of clamshell buckets, concrete mixers, towers, chutes, mast plants, road finishers, screeds, sub-graders, grade rooters, etc. The firm will also represent R. H. Beaumont Co., and the Beaumont Manufacturing Co., Philadelphia, manufacturers of power drag scrapers, material bins and batcher plants. It will represent the National Steel Fabric Co., Pittsburgh, for its center joint construction method for roads. For the Bucyrus-Erie Co., South Milwaukee, Wis., and Erie, Pa., it will handle power shovels and cranes.

**Arkansas Offers State Bonds.**

Opportunity for investment in Southern development is offered by the State of Arkansas in an issue of \$28,000,000 of highway and toll bridge bonds, bearing interest at 5 per cent, details as to maturities being given in an advertisement in the MANUFACTURERS RECORD: prices to yield 4.75 per cent. The securities are legal investment for savings banks and trust funds in New York, Massachusetts and other states. The financial statement officially estimates actual valuation at \$1,219,441,326, population 2,100,000 and net bonded debt \$61,200,000, with assessed valuation at \$609,720,663 in 1928. The bonds are described as general obligations of the state.

**Louisville & Nashville in 1928.**

The report of the Louisville & Nashville Railroad Company, as published in this issue of the Manufacturers Record, shows net revenue from railway operations as \$29,407,416.43 and net income of \$14,323,219.55, after deductions of \$10,763,746 for interest on funded debt and other deductions of \$369,700. Railway operating revenues were \$135,638,457 and similar expenses were \$106,231,041. The total operated mileage was 5068, of which 4503 miles actually is owned by the company. The number of passenger miles was 532,884,074, and freight miles ran to 12,920,716,567.

**Company Changes Name.**

The name of the American Spiral Pipe Works, Chicago, Ill., has been changed to Taylor Forge & Pipe Works. The company which has been serving the engineering trades since 1900, remains unchanged in ownership and capital structure, the change of name being for the convenience of customers who were not wholly familiar with the company's wide range of products for high pressure service.

**Handles Shade Problems.**

Shade problems involving steel sash, skylights, ventilation, lighting, cost reduction and so on are handled by the Aeroshade Company, Waukesha, Wis., with Aerolux ventilating industrial window shades. Type 5 permits full use of ventilators, and other types are for other sash, monitors or skylights. Aerolux engineers may be consulted on questions of "sun grief."

**Columbia Steel Mill.**

The formal opening of the new \$4,500,000 mill of the Columbia Steel Corporation, San Francisco, at Pittsburgh, Cal., was a gala celebration. The mill is completely electrified throughout and included in part of the drive is a 5000 horsepower Westinghouse synchronous motor 24 feet in diameter, weighing 176,000 pounds, reputed to be the largest of its kind in the world.

**Opens Knoxville Office.**

The Casey-Lewis Company, advertising, Nashville, Tenn., has opened an office at Knoxville, Tenn. Hugh F. Van Deventer, Jr., of Knoxville is in charge.

**Richeson Memphis Office.**

W. L. Richeson & Sons, New Orleans, ocean freight brokers and forwarding agents, announce the opening of an office in Memphis, in the Cotton Exchange Building, with Charles B. Bowling as vice-president and manager. The Memphis office will be a clearing house in the Mississippi Valley for the company's business, and also will broadcast business information.

**Virginia Port Representative.**

Albert Hooper, Eastern representative of the Bureau of Port Development, Charleston, S. C., with headquarters in New York, has been appointed foreign trade representative for the Virginia State Port Authority, succeeding Harry R. Wood, who has joined the Seaboard National Bank of New York. Mr. Hooper's office will be in the Whitehall Building.

**Executives Elected.**

The Pittsburgh Testing Laboratory, inspecting engineers and chemists, Pittsburgh, Pa., has elected B. H. Witherspoon as president and A. R. Ellis as vice-president in charge of operations. Mr. Witherspoon was formerly with the Remington Rand Business Service, Inc., in Los Angeles, Cal., and Mr. Ellis has been affiliated with the Pittsburgh Testing Laboratory since 1910.

**Dixon Paints Additions.**

The Joseph Dixon Crucible Company, Jersey City, N. J., manufacturer of graphites and graphite products and paints, announces that Dixon's industrial paints, known as Dixon's silica-graphite paints, have been increased in range from eight to 14 colors, a straight aluminum paint and a standard red oxide paint. The company will send color cards, prices and information on any one or all of these paints upon request.

**Wall Edition of Constitution of United States.**

An annotated edition of the Constitution of the United States, printed on single sheets 22 x 29 inches and equipped with hangers for putting on the walls of offices and schools is being distributed by the Constitution Educational Association, an organization which has done splendid work in arousing the public interest in the supreme law of the land. The notations in the text show which clauses of the original Constitution or of early amendments have been changed or supplanted by later amendments. Such an arrangement is a great advance over the custom of printing the document as originally framed, with amendments tacked on, and leaving it to the student to ferret out the changes effected in the force of early clauses by succeeding amendments, while the printing of all on one large sheet eliminates necessity for turning back from page to page. Like a single map of the world, the whole thing is before the eye at a glance. It is hoped that during the year many copies will be hung on the walls of offices, schools, public libraries and private studies. Copies of this edition may be had for 35 cents each; three copies for \$1.00; a dozen copies for \$3.00 or fifty copies for \$10. For framing, copies are available without hangers. Address Constitution Educational Association, 28 E. Jackson Boulevard, Chicago, Ill.

Statement of the ownership, management, circulation, etc., required by the Act of Congress of August 24, 1912, of MANUFACTURERS RECORD, published weekly at Baltimore, Md., for April 1, 1929.

**State of Maryland,****City of Baltimore.**

Before me, a Notary Public, in and for the State and City aforesaid, personally appeared Frank Gould, who, having been duly sworn according to law, deposes and says that he is the Business Manager of the MANUFACTURERS RECORD, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management, etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in Section 411, Postal Laws and Regulations, to wit:

1. That the names and addresses of the publisher, editor, managing editor and business managers are: Publisher, Manufacturers Record Publishing Co., Baltimore, Md.; editor, Richard H. Edmonds, Manufacturers Record, Baltimore, Md.; managing editor, none; business managers, Frank Gould and Victor H. Power, Manufacturers Record, Baltimore, Md.

2. That the owner is Manufacturers Record Publishing Company, Baltimore, Md. Stockholders are: Richard H. Edmonds, Manufacturers Record, Baltimore, Md.; Mrs. Addie L. Edmonds, Manufacturers Record, Baltimore, Md.; Miss Mary E. Edmonds, Manufacturers Record, Baltimore, Md.; Frank Gould, Manufacturers Record, Baltimore, Md.; I. S. Field, Manufacturers Record, Baltimore, Md.; C. R. Marchant, Manufacturers Record, Baltimore, Md.; V. H. Power, Manufacturers Record, Baltimore, Md.; J. Robert Gould, Manufacturers Record, Baltimore, Md.

3. That there are no outstanding bonds, mortgages or other liens against the property, except mortgage on building, held by Baltimore Commercial Bank.

4. That the two paragraphs next above, giving the names of the owners, stockholders and security-holders, if any, contain not only the list of stockholders and security-holders as they appear upon the books of the company, but also, in cases where the stockholder or security-holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security-holders who do not appear upon the books of the company as trustees hold stock and securities in a capacity other than that of a bona-fide owner, and this affiant has no reason to believe that any other person, association or corporation has any interest, direct or indirect, in the said stock, bonds or other securities than as so stated by him.

FRANK GOULD.

Vice-President.

Sworn to and subscribed before me this 26th day of March, 1929.

HARRY W. KLUTT.

Notary Public.

(My commission expires May 6, 1929.)

**Ric-wil New Offices.**

The Ric-wil Company, Cleveland, Ohio, manufacturer of conduit systems for underground steam pipes, has opened direct factory branch offices in the Harris Trust Building, Chicago, and the Garrett Building, Baltimore, the former in charge of Ralph E. Sutherland and Fred. G. Austin and the latter under Louis G. Vance. These give the company four direct factory branches, with 44 agencies. A new department specializes in products of special interest to the sewer industry.

**Reading Iron Changes.**

The Reading Iron Company, Reading, Pa., has established an office in the Mutual Building, Kansas City, Mo., in charge of H. D. Pollard. Also John G. Cottle has become railroad sales representative in the Chicago and western territory, and O. L. McGinn has been engaged as salesman attached to the Chicago office.

## CONTRACTS LET FOR 554-MILE GAS LINE— MONROE TO ST. LOUIS.

### Mississippi River Fuel Corporation Project Involves 115,000 Tons of Pipe.

St. Louis, Mo.—Contracts have been awarded by the Mississippi River Fuel Corp., through the Purchasing Department of the Standard Oil Company of New Jersey, New York, for a 449-mile gas pipe line from Monroe, La., to St. Louis. The A. O. Smith Corp., Milwaukee, Wis., was awarded contract for 325 miles of electrically welded 22-inch pipe and 19 miles of lap welded 22-inch pipe, while the National Tube Co., Pittsburgh, Pa., was awarded contract for 105 miles of 22-inch lap welded pipe and the United States Steel Corp., New York, will supply 25 miles of 16-inch lap welded pipe, the latter to be used for a feeder line to extend from Richland, La., to Monroe. These awards will involve a total of 115,000 tons.

Contract for crossings over the Arkansas, White and Mississippi rivers was awarded to Ford, Bacon & Davis, Inc., New York, who will supervise the construction of the entire project, through the Oklahoma Contracting Co., Fort Worth, which will build the northern half of the project, and Williams Bros., of Tulsa, Okla., who will build the southern half. Five 6000-horsepower compressing stations, one in the field and four about 100 miles apart along the route, will be constructed by the owners. Eighteen engines of 1000-horsepower each to supply power for the pumping centers have been ordered from the C. and G. Cooper Co., Mount Vernon, Ohio, and 12 Worthington pumps of the same horsepower from the Worthington Pump & Machinery Co., Harrison, N. J.

It is the purpose of the Mississippi River Fuel Corp. to supply in a big way natural gas for purely industrial uses, the potential industrial market of St. Louis being estimated at 150,000,000 cubic feet daily. The company was organized solely, it is said, to lay and operate the proposed line, and is owned by a number of natural gas interests in Midwestern fields, including the Interstate Natural Gas Co. and the Hope Producing Co., subsidiaries of the Standard Oil Company of New Jersey, and gas operating companies owned and controlled by the Electric Power & Light Corp. and the Columbian Carbon Co., both of New York, and the Moody-Seagraves Corp., Houston.

### Plans for Supreme Court Building and \$7,500,000 House Office Addition.

Washington, D. C.—Preliminary plans to determine the design, dimensions and approximate cost of a proposed building for the United States Supreme Court are being prepared by Cass Gilbert, New York, who will submit a report to the Supreme Court Building Commission for presentation to Congress in its consideration of an appropriation for the erection of the building.

An appropriation has already been made for the erection of a \$7,500,000 addition to the House Office Building, for which plans and specifications will probably be prepared by the Allied Architects of Washington, Inc.

### \$1,000,000 Hot Springs, Ark., Medical Building.

Hot Springs, Ark.—Construction is expected to be started within a few weeks on a 14-story medical arts building, stadium type theater and other developments here, according to John P. Almand, Little Rock, architect for the structure. Negotiations for the construction of the building have been completed by B. M. Jackson, connected with the Southern Security Co., Little Rock, and James A. Rector, Little Rock, representing the Rector trust estate. The building is estimated to cost \$1,000,000.

## Superior Oil Corporation Acquires Moody Corporation.

Regarding its recent acquisition of the Moody Corp., the Superior Oil Corp., of Tulsa, Okla., H. E. Davies, president, advises that the purchase includes the entire outstanding capital stock of the Moody Corp., consisting of 333,200 shares. The transaction gives the Superior Oil Corp. approximately 65,000 acres of undeveloped leases in Texas, and a small acreage in New Mexico, with a daily production on the Gulf Coast of about 4600 barrels, approximately 1000 barrels of which come from a well just completed at Pierce Junction, known as Whitehead B-4. The Moody Corp. also has a potential production, according to recent tests, of approximately 14,000 barrels daily in the Dora Roberts pool in Howard County, Texas. Under the present curtailment plan, however, the company is allowed to produce from this pool only 6500 barrels daily. It also has some small production in Haskell County, Texas, located on a large block, and it is thought further development will increase production considerably. The deal also involves a gasoline plant in Eastland County, Texas, operated under the name of the Adams Gasoline Co., with a daily output of about 3500 gallons.

### Electric Light and Power Plants in Virginia— Over 200 Per Cent Increase in Capacity in Five Years.

According to the Department of Commerce, the total output of electric current in Virginia in 1927 was 973,766,450 kilowatt hours, an increase of 205.1 per cent as compared with 319,206,325 kilowatt hours generated in 1922. During the same period the generator capacity increased from 117,272 kilowatts to 364,633 kilowatts, or 210.9 per cent. Marked increases are shown also for the horsepower of steam turbines and internal-combustion engines in use as prime movers.

Those figures cover both commercial and municipal plants, but do not cover those operated by mines, factories, hotels, and other enterprises not in the nature of public utilities, which consume all the current generated, nor plants operated by the Federal Government or by state institutions. No data are included for electric-railway power plants unless a part of the current generated is sold.

The 52 electric light and power establishments reported from Virginia for 1927 comprised 35 commercial and 17 municipal establishments. The word "establishment" refers to ownership or control; consequently in many cases a commercial establishment represents two or more generating stations or distribution systems.

#### SUMMARY OF THE INDUSTRY.

	1927	1922	Per cent of increase or de- crease (-)
Number of establishments, total	52	99	*
Commercial	35	69	*
Municipal	17	30	*
Number of generating stations	87	13	*
Prime movers:			
Total number	215	184	16.8
Total horsepower	501,773	163,232	207.4
Steam engines:			
Number	18	44	*
Horsepower	3,269	7,020	-53.4
Steam turbines:			
Number	55	37	*
Horsepower	395,936	101,310	290.8
Internal-combustion engines:			
Number	39	30	*
Horsepower	4,815	1,502	220.6
Hydro-turbines:			
Number	103	73	*
Horsepower	97,755	53,400	83.1
Generators:			
Number	222	169	31.4
Kilowatt capacity	364,633	117,272	210.9
Output of stations, kilowatt hours	973,766,450	319,206,325	205.1
Number of customers	211,008	61,182	244.9

\*Per cent not computed where base is less than 100.

TRADE **"LEADITE"** MARK

Registered U. S. Pat. Office

## **Laid 10 miles of water main—and satisfactory in every particular!**

*—said a waterworks engineer of national reputation, referring to this installation*

*Here is the story:—*

THE Second Taxing District, South Norwalk, Connecticut, U.S.A., has just completed the installation of approximately ten miles of cast iron bell and spigot water mains, varying in size from 6" to 18". The work included the placing of about fifty cutting-in-tees on existing piping and their connection to new work.

Leadite was selected for jointing material after receiving competitive bids for laying with lead.

The total amount of the successful bids for all work, excepting the furnishing of the cast iron pipe, specials and valves, was as follows:

Lead Joints .....	\$155,631
<b>LEADITE</b> Joints .....	142,535
Difference .....	\$ 13,096
Saving in favor of <b>LEADITE</b> ..	8.4%

The work was performed by contractors experienced in the use of this material and was satisfactory in every particular.

*Specifications* required that after laying, the pipe should be tested for leakage under water pressures varying from 40 pounds to 115 pounds per square inch, and that the leakage should not exceed two gallons per 24 hours per linear foot of joint. The results of the tests were well within this limit.

This work was under the direction and supervision of Mr. Nicholas S. Hill, Jr., Consulting Engineer, 112 East 19th Street, New York, N.Y., U.S.A.

Leadite is used extensively by thousands of water works engineers, superintendents and contractors with excellent results.

Specify  
and use  
**LEADITE**  
It saves  
at least 75%

Be sure  
it is  
**LEADITE**  
and accept  
no imitations

*The pioneer self-caulking material for c. i. pipe.  
Tested and used for over 30 years.*

THE LEADITE COMPANY . . Land Title Building . . PHILADELPHIA, PA., U.S.A.

# NO CAULKING

## \$2,000,000 GRADE ELIMINATION PROJECTS UNDER WAY IN BALTIMORE.

### Western Maryland and Baltimore & Ohio Railroads Let Contracts and Break Ground.

In connection with the plan for eliminating grade crossings on Hanover Street, Baltimore, the Baltimore and Ohio Railroad Co. and the Western Maryland Railway Co. are going forward with construction involving the expenditure of more than \$2,000,000.

The Baltimore and Ohio improvements, estimated to cost \$1,780,000, include reconstruction of the Locust Point branch, removal of present tracks on Wells Street at the Hanover Street crossing, and assigning of the Wells Street track between Fort Avenue and the Riverside Shops of the company for industrial purposes only. Expenditure for the Hanover Street viaduct, the principal structure involved, will be approximately \$635,000.

Contract has been awarded to the Empire Construction Co., Baltimore, for preparation of roadbed, including drainage structure, for the relocated Locust Point Branch; concrete masonry substructure for the bridge to carry Hanover Street over the tracks, consisting of three 70-foot spans with a north approach 400 feet in length and a south approach 230 feet in length to the center of McComas Street; and for a concrete masonry substructure for the two 40-foot span bridge to carry the Railroad's tracks over the Key Highway. From 600,000 to 700,000 cubic yards of excavation is covered by the contract.

The Locust Point Branch now crosses Hanover, Charles and Light Streets at Wells Street at grade. With the completion of this grade crossing elimination project all the territory south of Winder Street, one block south of Wells Street, will be used almost exclusively for railroad purposes; Charles and Light Streets will be closed at Winder Street and Hanover Street will be elevated and carried over the tracks of the Baltimore and Ohio and Western Maryland railroads. The present Wells Street tracks leading to the company's Riverside engine terminal are to be abandoned and a new connection provided from the Winder Street track. The program will provide a low grade entrance to the Locust Point yards and separate the grade of all streets from the grade of the railroad tracks east of Fort Avenue, giving the Baltimore and Ohio trains through and unrestricted right-of-way east of the Fort Avenue crossing at Race Street. It is expected that work on the Hanover Street and Key Highway bridges will be completed within approximately six months and that the entire undertaking will be finished by January 1, 1930.

Truss piles are being driven on the Western Maryland Railway's portion of the grade crossing elimination project, which is to involve an approximate expenditure of \$340,000. This part of the viaduct program will extend from the end of the Baltimore and Ohio's section at McComas Street to a point near the end of the present highway bridge over the Patapsco River.

The bridge proper will be 364 feet in length, consisting of seven 52-foot spans, precast concrete piles, concrete foundations, reinforced concrete piers and abutments, and steel girders encased in concrete. The piers will be 22 feet 3 inches in height. A 50-foot driveway will be used, with a 28-foot sidewalk on both sides and provision will be made for a double track street railway. The approach fills will involve construction of 130,000 cubic yards of embankment.

J. L. Robinson Construction Co., Baltimore, to whom the general contract was awarded for the entire Western Maryland portion of the program excepting the bridge lighting and roadway paving, have awarded subcontracts to: American Bridge Company, New York, for steel; Pugh Brothers, Baltimore, for steel erection; Raymond Concrete Pile Company,

New York, for precast concrete piles; Maryland Steel Products Company, Baltimore, for reinforcing steel, and to William Meyer, for construction of the fill approach work. All work covered by the general contract is to be completed by December 1, 1929.

### Electric Light and Power Plants in West Virginia.

The Department of Commerce states that the total output of electric current in West Virginia in 1927 was 1,902,819,767 kilowatt hours, an increase of 38.7 per cent as compared with 1,199,378,080 kilowatt hours generated in 1922. During the same period the generator capacity increased from 300,463 kilowatts to 564,527 kilowatts, or 87.9 per cent. Marked increases are shown also for the horsepower of steam turbines and hydro-turbines in use as prime movers.

These figures cover both commercial and municipal plants, but do not cover those operated by mines, factories, hotels, and other enterprises not in the nature of public utilities, which consume all the current generated, nor plants operated by the Federal Government or by state institutions. No data are included for electric-railway power plants unless a part of the current generated is sold.

The 54 electric light and power establishments reported from West Virginia for 1927 comprised 48 commercial and 6 municipal establishments. The word "establishment" refers to ownership or control; consequently in many cases a commercial establishment represents two or more generating stations or distribution systems.

#### SUMMARY FOR THE ELECTRIC LIGHT AND POWER INDUSTRY.

	1927	1922	Per cent of increase or decrease (-)
Number of establishments, total	54	66	*
Commercial	48	57	*
Municipal	6	9	*
Number of generating stations	51	56	*
Prime movers:			
Total number	126	137	-8.0
Total horsepower	755,268	392,722	92.3
Steam engines—			
Number	21	41	*
Horsepower	5,837	14,212	-58.9
Steam turbines—			
Number	57	49	*
Horsepower	658,036	363,525	81.0
Internal-combustion engines—			
Number	21	28	*
Horsepower	6,734	7,588	-11.3
Hydro-turbines—			
Number	27	19	*
Horsepower	84,661	7,397	1,044.5
Generators:			
Number	136	135	0.7
Kilowatt capacity	564,527	300,463	87.9
Output of stations, kilowatt hours	1,902,819,767	1,199,378,080	38.7
Number of customers	156,592	74,069	111.4

\*Per cent not computed where base is less than 100.

### Two Carbon Black Plants Announced for Panhandle.

Borger, Tex.—The Godfrey L. Cabot Co., Inc., Boston, Mass., has taken over two permits granted the Skelly Oil Co., Tulsa, Okla., to burn 25,000,000 cubic feet of gas daily for carbon black purposes on each of two locations in the Panhandle District, and it is the intention of the Cabot company to build two plants, one in Moore county and the other in Gray county.

### Public-Utility Earnings.

Gross earnings of public utility enterprises in February, exclusive of telephone and telegraph companies, as reported to the Department of Commerce, were \$194,000,000, as compared with \$203,000,000 in January, and \$187,383,731 in February, 1928. Gross earnings consist, in general, of gross operating revenues. The total for 1928 was \$2,229,552,394 compared with \$2,113,074,302 in 1927.

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**W**ATER-REPELLENT mortar, of course, helps prevent leaky walls. The U. S. Bureau of Standards says that it also reduces efflorescence by preventing the passage of salts in solution through the mortar. In addition it preserves mortar colors by preventing water from penetrating the joint and leaching out the pigment.

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A true hydraulic cement, ideal for use in walls below grade. It makes a water-repellent mortar, with no lime in the mix.



# FINANCIAL NEWS

## Bond Issues Proposed

Ala., Anniston—Improvement—City, Sidney J. Reaves, Mayor, receives bids Apr. 25 for \$10,000, 5 1/2%, \$1,000 denom. bonds.

Ala., Gadsden—School—City votes May 7 on \$100,000 bonds. 3-14

Ala., Mobile—School—Mobile County plans voting soon on \$500,000 bonds; H. H. Wefel, School Commr.

Ark., Pine Bluff—City, W. L. Toney, Mayor, defeated \$65,000 bond issue for public library.

Fla., De Funik Springs—Walton County Commrs., M. T. Fountain, Clk., receive bids Apr. 29 for \$90,000, 6%, \$1,000 denom. bonds: \$50,000, hospital; \$40,000, jail. 2-28

Fla., De Land—Volusia County Special Tax School Dist. No. 38 votes Apr. 17 on \$27,000, 6%, \$1,000 denom. bonds.

Fla., Palm Beach—City, Barclay H. Warburton, Mayor, voted \$450,000 bonds for public improvements, including, seawall extension, street and sewer projects; may receive bids for bonds June 1. 3-14

Fla., Fernandina—Fernandina Special School Tax Dist. No. 1 voted \$20,000 bonds, plans selling 6% bonds.

Fla., Homestead—Refunding—City, R. E. Edwards, Clk., receives bids April 16 for \$100,000, 6%, \$1,000 denom. bonds.

Fla., Pensacola—Bridge—Escambia County Commrs., Langley Bell, Clk., will present bill to Legislature providing for \$200,000 bonds for bridge.

Fla., Pensacola—Indebtedness—City Commr., J. Harvey Bayless, Mayor, plans \$54,000 bond issue for street work.

Fla., Tallahassee—Road—Leon County Commrs., Geo. J. Sullivan, Chmn., receives bids Apr. 22 for \$410,000, 5% bonds.

Ga., Blakely—Union Consolidated School Dist., Shelly Simmons, Trustees, voted \$25,000 5 1/2% bonds.

La., Bastrop—City votes May 14 on \$90,000 bonds: \$65,000, municipal hospital; \$25,000, municipal airport.

Ky., Frankfort—Bridge—State Highway Comm., Ben Johnson, Chmn., receives bids Apr. 23 for \$10,767,000 bonds to build or acquire 15 bridges. 3-21

Ky., Henderson—Road, Bridge—Henderson County, B. F. Crafton, County Judge, receives bids Apr. 17 for \$200,000, 4 1/2% bonds.

Ky., Paducah—Street—Mayor and Commr. of Finance plan selling \$33,394 bonds.

Ky., Russell—Bd. of Council, E. W. Smith, City Clk., receives bids Apr. 15, for \$100,000, 6% water revenue bonds.

La., Baton Rouge—Water—City, Wade H. Bynum, Mayor, indefinitely postponed \$900,000 bond election; lately noted vote Apr. 2. 3-7

La., Cottonport—Avoyelles Parish School Bd., G. L. Portiere, Pres., Marksville, receives bids Apr. 23 for \$60,000 bonds.

La., Houma—Bd. of Commrs., Gravity Drainage Dist. No. 2, Terrebonne Parish, O. J. Theriot, Sec., receives bids May 1, for \$15,000, 6% bonds.

La., Oak Grove—West Carroll Parish School Bd., R. A. Everett, Pres., canceled proposed offering, \$75,000, not to exceed 6% Pioneer School Dist. No. 4 bonds, as election held Mar. 20 was unsuccessful. 4-4

Md., Hagerstown—School—Washington County Commrs. approved \$450,000 bond issue.

Miss., Greenwood—City Commrs. approved plans for \$30,000 bond issue toward improving Kings Daughters Hospital.

Miss., Jackson—Mississippi Rehabilitation Comm. considering sale of additional bonds to aid farmers of 1927 flood dist.

Miss., Macon—School—City plans voting in May on \$45,000 bonds.

Miss., Meridian—Sewer—City, W. H. White, Clk.—Treas., considering selling \$60,000, 6%, \$1,000 denom. bonds.

Miss., Poplarville—Paving—City considering \$100,000 bond election.

Miss., Prentiss—Hathorn Consolidated School Dist., Jefferson Davis County, votes Apr. 27 on \$8,000 bonds.

Mo., Ava—Courthouse—Douglas County contemplates \$100,000 bond election.

Mo., Bakersfield—School—Town considering \$20,000 bond election.

Mo., Crane—Crane Consolidated School Dist. No. 3 voted \$28,500 bonds. 3-28

Mo., Downing—School—City voted \$27,000 bonds.

Mo., Independence—School—City votes Apr. 20 on \$185,000 bonds, defeated bonds. 3-28

Mo., Linneus—Street—City, A. C. Jones, Mayor, plans voting on \$16,000 bonds.

Mo., Moberly—School—City defeated \$500,000 bond issue; B. F. Self, Sec., Bd. of Education.

Mo., Springfield—Springfield School Dist. voted \$1,500,000 bonds; A. R. Stewart, Sec. Bd. of Education.

Mo., Westplains—Courthouse—Howell County Court will call election early in summer on bonds.

N. C., Biltmore Forest, Asheville—Town Commrs. receive bids Apr. 29 for \$310,000, 6% bonds: \$80,000, water; \$150,000, street; \$80,000, sewer.

N. C., Charlotte—City, Marion Redd, Mayor, defeated \$220,000 armory-auditorium bonds, and \$1,250,000 school bonds. 2-28

N. C., Dobson—Funding—Surry County Commrs., T. M. Marsh, Register of Deeds, receive bids Apr. 17 for \$50,000 \$1000 denom. not to exceed 5 1/2% bonds.

N. C., Durham—City, R. W. Rigsby, Mgr., plans selling about \$2,000,000 bonds for street water line, and disposal plants.

N. C., Hendersonville—Henderson County Commrs., P. S. Ramsey, Register of Deed, receive bids Apr. 15 for \$350,000, \$1,000 denom. not to exceed 5 1/2% bonds: \$115,000, school funding; \$40,000, road and bridge funding; \$195, reefunding.

N. C., Lexington—Davidson County Commrs., Grant Raker, Clk., receive bids Apr. 16 for \$20,000 5 1/2%, \$1000 denom. Tyro Consolidated School Dist. bonds.

N. C., Lumberton—Water, Sewer—Town authorized \$65,000 bond issue.

N. C., Morganton—Water—Town, L. E. Smith, Clk., rejected bids for \$95,000, \$1,000 denom. not to exceed 6% bonds. 3-28

N. C., Morganton—Morganton Graded School Dist. votes Apr. 22 on \$35,000 bonds.

N. C., Raleigh—Wake County receives bids Apr. 15 for \$873,000 bonds to fund and refund county debts.

Okla., Bartlesville—Improvement—City plans receiving bids in about 6 weeks or 2 months for \$169,400 bonds. 3-7

Okla., Chickasha—Water—City defeated \$25,000 bond issue.

S. C., Camden—Bd. of Trustees, Kershaw County School Dist. No. 40, plans \$10,000 \$500 denom. not to exceed 6% bonds.

S. C., Charleston—Paving—City, W. S. Smith, Treas., receives bids Apr. 15 for \$74,000, 4 1/2%, \$1,000 denom. Series "P" bonds.

S. C., Chesterfield—Chesterfield County plans \$100,000, not to exceed 6% refunding bond issue.

S. C., Clover—York County Bd. of Trustees, School Dist. No. 57, L. L. Hardin, Chmn., receives bids Apr. 19 for \$50,000, 5 1/2% and 6% coupon bonds.

S. C., Columbia—Auditorium—Richland County Comm., considering selling \$300,000 bonds.

S. C., Darlington—Bd. of Trustees Darlington School Dist. No. 2 plans \$50,000, not to exceed 6% bonds.

S. C., Gaffney—Legislature passed bill authorizing Bd. of School Trustees to issue \$50,000, not to exceed 6% bonds.

S. C., Greenville—Welcome School Dist. No. 6-E, Greenville County, votes Apr. 16 on \$7200 bonds; F. E. Kitchen, member, Bd. of Trustees.

S. C., Laurens—City votes May 8 on \$70,000 bonds: \$30,000, municipal building; \$40,000, street improvement and indebtedness.

S. C., Pickens—Pickens County, J. T. McKinney, Supvr., receives bids Apr. 23 for \$300,000 reimbursement bonds.

Tenn., Adamsville—School—City plans \$10,000 bond election.

Tenn., Alamo—Road—Crockett County plans \$750,000 bond election; Road Commrs. will sell \$1000 denom. bonds. Lately noted bill introduced in legislature. 4-4

Tenn., Athens—McMinn County Court plans \$125,000 5% bond issue to liquidate outstanding county school debts.

Tenn., Athens—Legislature passed bill authorizing issuance, \$25,000, \$500 denom. not to exceed 6%, street paving assessment bonds; will vote on bonds.

Tenn., Bristol—Water—City, W. K. Carson, Treas., receives bids Apr. 16 for \$10,000 5% \$1000 denom. bonds.

Tenn., Bristol—City plans voting about middle of June on \$350,000 school bonds.

Tenn., Chattanooga—Hamilton County Court considering \$1,300,000 bond issue: \$1,200,000, schools in county and recently annexed suburban territories; \$100,000, bridge.

Tenn., Clinton—Legislature passed bill authorizing issuance of \$60,000, not to exceed 6% school bonds.

Tenn., Columbia—City, Harry W. Frierson, Mayor, and Maury County voted \$100,000, each, as their shares toward Middle Tennessee Junior College. 3-14

Tenn., Columbia—Street—City plans \$50,000, not to exceed 5% bond issue, to retire outstanding warrants.

Tenn., Covington—Tipton County Bd. of Education considering \$100,000 school bond issue, for buildings at Covington, Munford and Brighton.

Tenn., Greeneville—Indebtedness—Greene County Court authorized \$200,000 bond issue.

Tenn., Jasper—Indebtedness—Representative Dykes will introduce bill in legislature for \$150,000 bonds.

Tenn., Knoxville—Knox County, S. O. Houston, County Judge, plans selling \$950,000 bridge bonds: \$500,000, Henley St.; \$250,000, McBee Ferry; \$200,000, Solway Ferry; approved sale of \$100,000 bonds for poor asylum. 3-21

Tenn., Knoxville—Bridge—Knox County, Sam O. Houston, County Judge, voted \$500,000 bonds, as county's share toward Henley St. Bridge.

Tenn., Lewisburg—Refunding—Marshall County Court, W. T. Edmondson, Chmn., receives bids May 2 for \$190,000, 4 1/4% bonds.

Tenn., Nashville—City, S. H. McKay, Clk., and Davidson County, plan voting on \$3,000,000 bonds for courthouse and office building: \$150,000 bonds to complete President's Plaza, in Nashville; city plans voting on \$900,000 bonds for markethouse.

Tenn., Sparta—Water—City plans \$25,000 bond election.

Tenn., Springfield—Cooperstown School Dist. votes soon, on \$15,000 bonds.

Tex., Alice—Road—Jim Wells County, R. R. Mullen, County Judge, voted \$160,000 Road Dist. No. 1 bonds. 3-7

Tex., Beaumont—City, J. W. Anderson, Mgr., vote, probably, May 4 on \$5,175,000 bonds: \$1,000,000 paving; \$350,000, opening and widening streets; \$600,000, sewer; \$100,000, airport; \$75,000, parks, including purchase of site for South Park swimming pool; \$100,000, Tyrrell Park; \$200,000, fire department; \$175,000, South Texas State Fair; \$125,000, water main extensions; \$150,000, refunding warrants; \$15,000, police department; \$25,000, cooling system and bridge to city dump; \$400,000, improve wharf and dock properties; \$1,850,000, new dock and wharf development; R. C. Black, City Engr. 4-4

Tex., Bonham—Road—Fannin County, C. A. Wheeler, Judge, defeated \$2,700,000 bond issue. 3-21

Tex., Dallas—Dallas County Commrs. Court receives bids May 13 for \$1,250,000, 4% road and bridge bonds.

Tex., Denton—City, B. W. McKenzie, Mayor, voted \$135,000 bonds: \$37,000, street; \$30,000, fire Dept. improvement; \$50,000, school; \$18,000 parks. 3-14

Tex., Galveston—Street—City Commrs. considering \$200,000 bond issue.

Tex., Kaufman—Road—Kaufman County, Precinct No. 1, votes May 4 on \$100,000 bonds. 3-28

Tex., Mineola—City Hall—City considering \$25,000 bond or warrant issue.

Tex., Mission—Hidalgo County, Water Control & Improvement Dist. No. 1, receives bids in about 40 to 60 days, for \$2,750,000 bonds; J. Q. Henry, Atty. for District. 2-28

Tex., Perryton—Road—Ochiltree County considering bond election.

Tex., Sulphur Springs—Road—Hopkins County considering \$1,500,000 bond election.

Tex., Temple—Bd. of Education considering \$60,000 to \$75,000 bond issue.

Tex., Waco—Road—McLennan County, R.

(Continued on page 100)



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## FINANCIAL NEWS

(Continued from page 98)

R. Stanford, County Judge, receives bids Apr. 22 for \$1,160,000, 4½% bonds; Manton Hannah, Conty Engr. Lately noted bids Apr. 2. 2-14

Tex., Weimar—City, Mayor Holt, receives bids Apr. 15 for \$40,000 to \$50,000, 5½%, \$1,000 denom. water works bonds. 2-14

Va., Chatham—School—Pittsylvania County Bd. of Supvs., and County School Bd. considering about \$150,000 bond issue. 2-14

Va., Petersburg—City, R. T. Wilson, Mayor, considering \$500,000 bond issue for curbs, gutters, sewers and power. 2-14

Va., Portsmouth—Bd. of Drainage Comms., Norfolk County, John G. Wallace, II, Chmn., receives bids Apr. 18 for \$180,000 6% \$1000 or \$500 denom. Butts Road Drainage Dist. No. 3 bonds. 2-14

W. Va., Charleston—Highway—State, Wm. G. Conley, Governor, plans receiving bids about May 1 for \$4,500,000 bonds. 2-14

W. Va., Paw Paw—Paw Paw School Dist., Morgan County, votes April 16 on \$225,000 bonds. 2-14

W. Va., Princeton—Courthouse — Mercer County Court will call election May 7 on \$400,000 bonds; Lately noted vote on \$600,000 bonds. 3-21

W. Va., Wheeling—Bridge—City votes May 9 on \$1,600,000 bonds; Carl O. Schmidt, City Solicitor. 3-14

### Bond Issues Sold

Ala., Sheffield—Refunding—City Comn. sold \$193,000 6% storm sewer and paving bonds to Marx & Co., and Steiner Bros., both Birmingham, at \$2,316 per unit. 2-14

Ala., Tuscaloosa—Road—Tuscaloosa County Bd. of Revenue, sold \$151,000 5% bonds to Caldwell & Co., Birmingham, and Nashville, Tenn., at par. 2-28

Fla., DeLand—Road, Bridge — Volusia County Comms. sold \$97,000 Orange City—Lake Helen Special Road and Bridge Dist. bonds to Brown-Crummer Co., Wichita, Kansas, par and accrued interest. 2-10

Fla., Dunedin—City, W. Lovett Douglas, Mgr., sold \$148,000 6% \$1000 denom. refunding improvement bonds to Peoples Bank, Clearwater, at 92 plus accrued interest. 1-10

Fla., Fort Myers—Refunding Indebtedness —City, Lester H. Barker, Acting City Mgr., sold \$150,000 5½% of \$250,000 bond issue, to Brown-Crummer Co., Orlando, and Wichita, Kansas, 95.12. 2-28

Ga., Milner—Bd. of Trustees Milner Consolidated School Dist. sold \$25,000 5% \$1000 denom. bonds, jointly to J. H. Hilsman & Co., Inc., 601 Atlanta Trust Bldg., and Citizens & Southern Co., both Atlanta. 2-21

Miss., Jackson—City, Walter A. Scott, Mayor, sold \$675,000 bonds at 100.84, to syndicate composed of National City Co., New York; Capitol National Bank, Mississippi Bond & Securities Co., both Jackson; \$500,000, general improvement; \$175,000, water works. 3-28

Mo., Crane—Bd. of Trustees, Crane Consolidated School Dist. No. 3, sold \$28,500 5½% \$1000 and \$2000 denom. bonds to Prescott, Wright, Snider Co., Kansas City, Mo., \$29,025 and accrued interest. 3-28

Mo., Sedalia—Road—Pettis County sold \$100,000 of \$500,000, 4½% bonds to Commerce Trust Co. of Kansas City at \$130 premium. 2-28

Mo., Springfield—Kauffman, Smith & Co., Inc., and Mississippi Valley Trust Co., both St. Louis, Mo., purchased \$1,500,000 Springfield School Dist. bonds. 2-28

N. C., Charlotte—School—Mecklenburg County sold \$75,000 6% notes to Independence Trust Co., Charlotte. 2-28

Tenn., Dyersburg—Dyer County Comms. sold \$200,000 5½% refunding bonds to Caldwell & Co., Nashville, Tenn., at par. 2-28

Tex., Carrizo Springs—J. E. Jarratt Co., San Antonio, purchased \$80,000 5% Carrizo Springs Independent School Dist. bonds, subject to election in near future. 2-28

Tex., Corpus Christi—B. F. Dittmar & Co., San Antonio, purchased \$100,000 Corpus Christi Independent School Dist. bonds at par and accrued interest. 2-28

Tex., Lockhart—Street—First National Bank and Lockhart National Bank, both Lockhart, purchased \$100,000 bonds. 2-28

### Building and Loan Associations

Fla., Tallahassee—Southern Home Builders Corp., chartered; G. J. Debb, F. G. Hakim. 2-28

### New Financial Corporations

Fla., Brooksville—First National Bank of Brooksville reorganized; F. B. Coogler, Pres.; Raymond Robins, Brooksville and New York, and Wm. P. MacDonald, Lakeland and New York, have taken over control. 2-28

Fla., Haines City—First National Bank of Haines City, capital \$25,000, organized; Victor Wray, Correspondent, Wray Bldg.; succeeds Commercial Bank & Trust Co. 2-28

La., Thibodaux—National Bank of Thibodaux, capital \$50,000, organized; Dr. J. J. Danos, Correspondent. 2-28

Tex., Commerce—Security State Bank of Commerce, capital \$35,000, chartered; R. L. Thornton, Pres., Dallas. 2-28

Tex., Converse—Air Corps National Bank of Converse, capital \$25,000, organized; J. E. Brinkmeyer, 1908 Main St. 2-28

Tex., San Antonio—Universal Investment Co., capital \$10,000, incorporated; Isaac Bledsoe, 900 W. Woodlawn St. 2-28

Tex., Waco—Mortgage Co. of Waco, 514 Professional Bldg., organized; O. M. Weatherby, G. B. Rogers. 2-28

W. Va., Harrisville—Union Bank of Harrisville, capital \$50,000, organized; W. H. Westfall, Pres.; A. J. Wilson, V.-P.; A. Hayes Elliott, Cashier. 2-28

Bank of Martinsburg, W. W. Downey, Pres., consolidated with Peoples Trust Co., J. O. Henson, Pres., both Martinsburg, W. Va., under plan whereby Peoples Trust Co. agrees to retire Bank of Martinsburg stock at price approximately that on books. 2-28

National City Bank, Chas. A. Faircloth, Pres., and First National Bank, R. J. Binicker, Pres., both Tampa, Fla., consolidated as First National of Tampa, with over \$20,-

000 resources; Chas. A. Faircloth, V.-P.; C. B. Galloway, Asst. Cashier. 2-28

Stein Bros. & Boyce, and associates, Baltimore, Md., are organizing Second Southern Bankers Securities Corporation, authorized capital stock 200,000 shares, no par value; Southern Bankers Securities Corp. purchased substantial amount capital stock in new company and entered into management contract; Second Southern Bankers Securities Corp. offers 30,000 shares at \$53 per share. 2-28

Buchanan Building & Loan Assn., Adolph Goerman, Pres., 213 N. Seventh St., St. Joseph, Mo., increased capital, \$500,000 to \$1,000,000. 2-28

Chemistry in Medicine, edited by Julius Stiegitz, New York: The Chemical Foundation, Inc. Leather. Pp. 757. \$2.

Described as "a comparative treatise intended to give examples of progress made in medicine with the aid of chemistry," this book is professedly designed to present to the public, as well as to the practitioners of medicine, the great possibilities for advance in medical science through further intensive cooperation between chemistry and medicine, as the foreword explains. Following a chapter on "The Significance of Chemistry and of Its Methods of Attack on Fundamental Problems," by Professor Stiegitz, Dr. Alexander Weinstein of Columbia University contributes "Heredity and Development" and Professor John R. Murlin, University of Rochester, and Professor Earle B. Phelps of Columbia University, discuss phases of the general subject, "The Human Body as a Machine." No Child Need Have Rickets is a thesis of Professor James M. Gamble of the Harvard Medical School; insulin in the treatment of diabetes is discussed by Professor J. J. R. Macleod of the University of Toronto, and numerous other topics by other authorities. By another authority "Chemistry in Medicine" is described as "a great book, marred by an inadequate index," this commentator adding that "valeric acid is really a group of syllables belonging to the word guanidine-amino-valeric acid; poisoning by white lead, etc., is not listed under Poison, but under Artist; Rheumatism refers to horse chestnuts and Soap refers to chaulmoogra oil saponified." He adds, however, "I cannot speak too highly of Chemistry in Medicine."

### Assumes Two Representations.

The Universal Equipment Company, Inc., Atlanta, Ga., has been appointed state distributor for Piatt oil burning equipment as manufactured by the Motor Wheel Corporation, Lansing, Mich.; also, for J. D. Wallace & Co., Chicago, Ill., manufacturers of wood-working machinery. 2-28

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Due serially September 1, 1930-1962

Principal and semi-annual interest (March 1 and September 1) payable in New York City.  
Coupon bonds in \$1,000 denomination, registerable as to principal.

*Legal Investment for Savings Banks and Trust Funds in New York, Massachusetts, and other States*

#### FINANCIAL STATEMENT

*(As officially reported)*

Actual Valuation, officially estimated .....	\$1,219,441,326
Assessed Valuation, 1928.....	609,720,663
Total Bonded Debt, including these issues.....	62,656,166
Bonds held by State Institutions.....	\$1,447,166
Net Bonded Debt.....	61,209,000
Population, 1920 Census.....	1,752,204
Population, officially estimated, 1929.....	2,100,000

THESE BONDS, issued for State highway and toll bridge purposes, will constitute, in the opinion of counsel, general obligations of the State of Arkansas, for the payment of which the full faith and credit of the State are pledged.

#### AMOUNTS AND MATURITIES

\$ 50,000 due Sept. 1, 1930	\$ 466,000 due Sept. 1, 1941	\$1,506,000 due Sept. 1, 1952
70,000 " " 1931	545,000 " " 1942	1,539,000 " " 1953
100,000 " " 1932	578,000 " " 1943	1,572,000 " " 1954
110,000 " " 1933	703,000 " " 1944	1,288,000 " " 1955
120,000 " " 1934	713,000 " " 1945	1,311,000 " " 1956
153,000 " " 1935	723,000 " " 1946	920,000 " " 1957
209,000 " " 1936	733,000 " " 1947	529,000 " " 1958
242,000 " " 1937	743,000 " " 1948	1,840,000 " " 1959
252,000 " " 1938	1,443,000 " " 1949	1,955,000 " " 1960
262,000 " " 1939	1,463,000 " " 1950	2,024,000 " " 1961
272,000 " " 1940	1,496,000 " " 1951	2,070,000 " " 1962

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All statements herein are official or are based on information which we regard as reliable, and while we do not guarantee them we ourselves have relied upon them in the purchase of this security.

April 1, 1929

# Excerpts from the Seventy-Eighth Annual Report of Louisville & Nashville Railroad Company

## Year Ended December 31, 1928

TABLE No. I  
INCOME ACCOUNT

RAILWAY OPERATING INCOME—	
Railway Operating Revenues.....	\$135,638,457.88
Railway Operating Expenses, 78.32 per cent.....	106,231,041.43
Net Revenue from Railway Operations, 21.68 per cent.....	29,407,416.43
Railway Tax Accruals.....	\$7,605,175.65
Uncollectible Railway Revenues.....	20,214.70
	7,625,390.35
Total Operating Income.....	21,782,026.03
NON-OPERATING INCOME—	
Equipment Rents—	
Hire of Freight Cars—Credit Balance \$927,925.94	
Rent from Locomotives.....	41,362.24
Rent from Passenger-Train Cars.....	188,481.38
Rent from Work Equipment.....	20,019.31
Joint Facility Income.....	1,177,788.87
Income from Lease of Road—	387,572.97
Clarksville & Princeton	
Branch.....	\$12,039.70
Paducah & Memphis	
Division.....	206,506.20
Miscellaneous Rent Income.....	218,545.90
Miscellaneous Non-operating Physical Property.....	100,410.64
Dividend Income—	30,299.68
Chicago, Indianapolis & Louisville Ry. Co. \$420,709.50	
Nashville, Chattanooga & St. Louis Ry....	803,887.00
Louisville, Henderson & St. Louis Ry. Co....	180,700.00
Sundry Stocks.....	98,539.50
From stocks held under Georgia R. R. Lease.....	97,444.00
Income from Funded Securities—	1,601,280.00
Sundry bonds and notes maturing more than two years after date.....	\$360,569.88

TABLE No. III.  
GENERAL BALANCE SHEET.  
Assets.

INVESTMENTS:	
Investment in Road and Equipment—	
Road.....	\$291,810,384.45
Equipment.....	145,439,754.64
(Table VI.).....	\$437,250,139.00
Improvements on Leased Railway Property (Table VI.).....	2,225,030.08
Sinking Funds—	
Total Book Assets.....	601,382.76
Bonds, this Company's Issue (Table V.).....	81,000.00
Deposits in Lieu of Mortgaged Property Sold.....	520,382.76
Miscellaneous Physical Property.....	5,196,288.75
Investments in Affiliated Companies—	
(a) Stocks (Table V.).....	19,323,443.00
(b) Bonds (Table V.).....	1,770,019.15
(c) Notes.....	992,287.89
(d) Advances.....	2,701,663.26
Other Investments—	
(a) Stocks (Table V.).....	1,991,555.99
(b) Bonds (Table V.).....	4,676,943.42
(c) Notes.....	65,158.31
(d) Advances.....	1,000.00
	6,734,657.72
CURRENT ASSETS:	
Cash.....	\$15,585,185.65
Time Drafts and Deposits.....	13,742,922.31
Special Deposits—	
Total Book Assets.....	\$620,598.50
Bonds this Company's Issue (Table V.).....	500,000.00
Stock (Table V.).....	\$5.00
Cash.....	120,593.50
Loans and Bills Receivable.....	3,545,278.52
Traffic and Car Service Balances Receivable.....	3,069,185.78
Net Balance Receivable from Agents and Conductors	782,430.89
Miscellaneous Accounts Receivable.....	2,382,932.10
Material and Supplies.....	11,214,918.95
Interest and Dividends Receivable.....	349,261.43
Rents Receivable.....	86,044.25
Other Current Assets.....	93,084.76
	50,971,813.14
DEFERRED ASSETS:	
Working Fund Advances.....	\$59,687.59
Other Deferred Assets—	
Southern Railway Company's Proportion of Bonds Issued Jointly.....	\$5,913,500.00
Other Accounts.....	495,663.13
	6,409,163.13
UNADJUSTED DEBITS:	
Rents and Insurance Premiums Paid in Advance..	2,659.29
Other Unadjusted Debits.....	1,972,761.99
	1,975,421.28

\*Securities Issued or Assumed—Unpledged (Table V.) \$56,067,500.00  
Securities Issued or Assumed—Pledged (Table V.) 18,329,000.00

## CONTINGENT ASSETS:

L. & N. Terminal Co. Fifty-year 4 per cent Gold Bonds outstanding, endorsed by Louisville & Nashville Railroad Company and Nashville, Chattanooga & St. Louis Railway.....	\$2,500,000.00
Memphis Union Station Company First Mortgage 5 per cent Gold Bonds, guaranteed by Louisville & Nashville Railroad Company and other interested railroad companies.....	2,500,000.00

GRAND TOTAL..... \$539,201,492.66

\*In addition, the Treasury holds the Certificate of the Trustee of the First and Refunding Mortgage Bonds that the Company is entitled under the mortgage to the issue of \$11,426,000 bonds for capitalizable expenditures heretofore made.

From bonds held under Georgia R. R. Lease.....	620.00	361,189.88
Income from Unfunded Securities and Accounts.....		919,323.93
Income from Sinking Funds.....		19,944.80
Miscellaneous Income.....		679.09
		3,251,674.82
Total Non-operating Income.....		4,817,038.66
<b>GROSS INCOME:</b>		26,599,062.74
DEDUCTIONS FROM GROSS INCOME—		
Equipment Rents—		
Rent for Locomotives.....		\$87,922.14
Rent for Passenger Train Cars.....		283,668.83
Rent for Work Equipment.....		13,129.08
		384,720.05
Joint Facility Rents.....		757,614.67
Rent for Leased Roads—		
Nashville & Decatur Railroad.....		\$134,867.49
Rents of other roads.....		97,214.95
		232,082.44
Miscellaneous Rents.....		47,712.31
Miscellaneous Tax Accruals.....		18,461.69
Interest on Funded Debt.....		10,763,746.58
Interest on Unfunded Debt.....		42,085.18
Miscellaneous Income Charges—		
U. S. Income Tax paid on Interest on Tax-Exempt Bonds.....		\$23,330.91
Fees and Expenses paid Mortgage Trustees, etc. ....		6,089.36
		29,420.27
		11,133,508.47
Total Deductions from Gross Income.....		12,275,843.19
Net Income.....		\$14,323,219.55
<b>DISPOSITION OF NET INCOME—</b>		
Income Applied to Sinking Funds.....		289.53
Income Balance Transferred to Credit of Profit and Loss.....		\$14,322,930.02

TABLE No. III.  
GENERAL BALANCE SHEET.

STOCKS:		Liabilities.
Capital Stock—		
Full shares outstanding.....		\$116,839,500.00
Fractional shares outstanding.....		720.00
Original stock and subsequent stock dividends unissued.....		139,780.00
		\$117,000,000.00
Premium on Capital Stock.....		12,116.76
		\$117,012,116.76
GOVERNMENT GRANTS:		
Grants in Aid of Construction.....		132,531.60
LONG TERM DEBT:		
Funded Debt—Unmatured—		\$305,985,620.00
Book Liability.....		
Held by or for this Company (Table V.)		\$56,067,500.00
In Treasury.....		81,000.00
In Sinking Funds.....		18,329,000.00
Deposited as Collateral.....		500,000.00
Special Deposit.....		74,977,500.00
Actually Outstanding (Table IV.).....		\$231,008,120.00
Liability of Southern Railway Company for Bonds Issued Jointly with this Company.....		5,913,500.00
		\$236,921,620.00
Non-negotiable Debt to Affiliated Companies—Open Accounts.....		55,685.91
		236,977,305.91
CURRENT LIABILITIES:		
Traffic and Car Service Balances Payable.....		\$761,039.64
Audited Accounts and Wages Payable.....		7,704,732.24
Miscellaneous Accounts Payable.....		1,887,330.34
Interest Matured Unpaid.....		1,824,890.50
Dividends Matured Unpaid.....		201,990.00
Funded Debt Matured Unpaid (Table IV.).....		11,000.00
Unmatured Dividends Declared.....		4,095,000.00
Unmatured Interest Accrued.....		1,856,754.48
Unmatured Rents Accrued.....		18,760.12
Other Current Liabilities.....		232,351.69
		17,797,067.01
DEFERRED LIABILITIES:		
Other Deferred Liabilities.....		113,326.72
UNADJUSTED CREDITS:		
Tax Liability.....		\$4,070,707.58
Accrued Depreciation—Road.....		16,063,006.08
Accrued Depreciation—Equipment.....		45,123,399.56
Accrued Depreciation—Miscellaneous Physical Property.....		323,580.64
Other Unadjusted Credits.....		7,101,825.85
		72,682,519.71
CORPORATE SURPLUS:		
Additions to Property through Income and Surplus.....		\$2,653,618.30
Sinking Fund Reserves.....		56,347.10
Appropriated Surplus not Specifically Invested.....		276,253.44
Total Appropriated Surplus.....		\$2,986,218.84
Profit and Loss—Balance.....		\$6,500,406.11
		\$9,486,624.95
CONTINGENT LIABILITIES:		
L. & N. Terminal Co. Fifty-year 4 per cent Gold Bonds outstanding, endorsed by Louisville & Nashville Railroad Company and Nashville, Chattanooga & St. Louis Railway.....		\$2,500,000.00
Memphis Union Station Company First Mortgage 5 per cent Gold Bonds, guaranteed by Louisville & Nashville Railroad Company and other interested railroad companies.....		2,500,000.00
		5,000,000.00
GRAND TOTAL.....		\$539,201,492.66

## SOUTHERN PACIFIC COMPANY

## REPORT OF THE BOARD OF DIRECTORS

## TO THE STOCKHOLDERS OF THE SOUTHERN PACIFIC COMPANY:

Your Board of Directors submits this report of the operations and affairs of the Southern Pacific Lines and Affiliated Companies for the fiscal year ended December 31, 1928.

## INCOME ACCOUNT

The following statements of income and of surplus show the income for the year and the accumulated surplus to the close of the year, accruing to Southern Pacific Company stock from the Transportation System and from all *separately operated Solely Controlled Affiliated Companies*, combined:

## NET INCOME OF THE SOUTHERN PACIFIC LINES AND SOLELY CONTROLLED AFFILIATED COMPANIES, COMBINED, FOR THE YEAR 1928 COMPARED WITH THE YEAR 1927

	Year Ended December 31, 1928	Amount	Per Cent.	Year Ended December 31, 1927	Amount	Per Cent.
1. Net income of Transportation System.....	\$39,028,633.24	+\$5,326,108.77	15.80			
2. Net income of Affiliated Companies.....	848,024.04	-1,448,648.30	63.08			
3. Net income of Transportation System and of all separately operated Solely Controlled Affiliated Companies combined	\$39,876,657.28	+\$3,877,460.47	10.77			
4. Per cent. earned on average amount of outstanding capital stock of Southern Pacific Company:						
(a) From operations of Transportation System.....	10.48	+	1.43	15.80		
(b) From operations of Affiliated Companies.....	.23	-	.39	62.90		
(c) Total for the year 1928.....	10.71	+	1.04	10.75		
(d) Total for the year 1927.....	9.67	...	...			

\*Excludes all inter-company dividends.

## SURPLUS OF THE SOUTHERN PACIFIC LINES AND SOLELY CONTROLLED AFFILIATED COMPANIES, COMBINED, TO DECEMBER 31, 1928

	Debit	Credit
1. Total corporate surplus at December 31, 1927.....		\$480,186,890.62
2. Net corporate deficit, at date of acquisition, of properties acquired during the year.....	\$1,077,586.25	.....
3. Credit balance transferred from income:		
Transportation System.....		\$37,452,900.31
Affiliated Companies.....	816,204.04	.....
4. Dividends paid:		
On capital stock of Southern Pacific Company:		
1 1/2 per cent paid April 2, 1928	\$5,585,713.50	
1 1/2 per cent paid July 2, 1928	5,585,713.50	
1 1/2 per cent paid Oct. 1, 1928	5,585,713.50	
1 1/2 per cent payable Jan. 2, 1929	5,585,713.50	
Total Southern Pacific Company.....	\$22,312,854.00	
On capital stocks of Transportation System Companies held by the public.....	30.00	22,342,884.00
5. Miscellaneous adjustments during the year.....	504,124,008.50	9,088,483.78
6. Credit balance December 31, 1928.....	\$527,544,478.75	\$527,544,478.75

## INCOME ACCOUNT OF SOUTHERN PACIFIC LINES

The income account of the Transportation System (Southern Pacific Company and Transportation System Companies, combined, excluding offsetting accounts and inter-company dividends) for the year 1928 compared with the year 1927, was as follows, viz:

	Year Ended December 31, 1928	+Increase	Per
		Decrease	Cent.
1. Railway operating revenues.....	\$300,104,027.53	+\$2,358,621.39	.79
2. Railway operating expenses.....	216,734,202.82	-1,444,989.50	.66
3. Net revenue from railway operations.....	\$83,369,824.73	+\$3,803,610.89	4.78
4. Railway tax accruals.....	21,525,425.43	+\$1,913.08	1.47
5. Uncollectible railway revenues.....	75,568.19	-\$6,555.50	42.80
6. Equipment rents—Net.....	7,018,072.68	+\$68,184.73	10.35
7. Joint facility rents—Net.....	*157,342.64	+\$13,964.21	10.35
8. Net railway operating income.....	\$54,908,101.07	+\$3,304,032.79	6.40

## Nonoperating Income

9. Income from lease of road.....	\$95,442.10	-\$139.85	.15
10. Miscellaneous rent income.....	1,691,917.26	-\$5,337.13	4.80
11. Miscellaneous nonoperating physical property.....	91,344.35	-\$12,834.97	12.32
12. Dividend Income.....	5,729,469.87	+\$1,793,446.77	45.56
13. Income from funded securities—Bonds and notes.....	2,905,280.70	+\$4,556.72	1.59
14. Income from funded securities—Investment advances.....	47,890.17	+\$7,361.57	18.16
15. Income from unfunded securities and accounts.....	1,460,047.38	+\$67,287.30	75.33
16. Income from sinking and other reserve funds.....	1,053,340.94	+\$4,171.96	4.79
17. Miscellaneous income.....	225,925.60	-\$180,138.86	44.36
18. Total nonoperating income.....	\$13,300,658.37	+\$2,433,383.51	20.29
19. Gross Income.....	\$68,208,759.44	+\$5,547,416.30	8.85

## Deductions from Gross Income

20. Rent for leased roads.....	\$253,428.99	+\$2,801.03	1.12
21. Miscellaneous rents.....	790,339.52	+\$1,229.60	.16
22. Miscellaneous tax accruals.....	43,984.00	-\$8,103.22	15.56
23. Separately operated properties—Losses.....	73,340.95	+\$17,546.00	31.37
24. Interest on funded debt—Bonds and notes.....	27,380,646.95	+\$273,141.13	1.01
25. Interest on funded debt—Nonnegotiable debt to affiliated companies.....	43,182.99	+\$20,717.73	92.22
26. Interest on unfunded debt.....	320,657.53	+\$16,936.59	57.40
27. Amortization of discount on funded debt.....	99,095.54	+\$2,777.56	35.16
28. Maintenance of investment organization.....	36,961.85	+\$2,645.13	7.71
29. Miscellaneous income charges.....	138,347.88	-\$231,584.02	62.58
30. Total deductions from gross income.....	\$29,180,126.20	+\$221,307.53	.76
31. Net income.....	\$39,028,633.24	+\$5,326,108.77	15.80

Disposition of Net Income			
32. Income applied to sinking and other reserve funds.....	\$1,494,159.41	+\$54,296.89	3.77
33. Income appropriated for investment in physical property.....	81,573.52	-\$44,744.59	35.42
34. Total appropriations.....	\$1,575,732.93	+\$9,552.30	6.61
35. Income balance transferred to credit of profit and loss.....	\$37,452,900.31	+\$5,316,556.47	16.54

\*Credit. Excludes all inter-company dividends.

The operating income of the Transportation System is dealt with further on under the heading "Transportation Operations—Southern Pacific Lines." The causes of the principal increases and decreases in nonoperating income and in deductions from gross income, are explained below, viz:

## NONOPERATING INCOME

The increase of \$1,793,446.77 in the account Dividend Income, is due, principally, to increased dividends received from Pacific Fruit Express Company and from Standard Oil Company of California, which increases were partly offset by a decrease in the amount of dividends received from the Reward Oil Company.

The increase of \$627,287.30 in the account Income from Unfunded Securities and Accounts, the sum of \$502,343.84 represents an increase in interest on time and demand loans, due to the increased amount of such loans and to increased interest rates; and \$103,828.72 represents an increase in interest on Federal income and other tax refunds received during the year.

The decrease of \$180,138.86 in the account Miscellaneous Income, is due, principally, to decrease in royalties received on oil from wells located on transportation property in the Spindletop, Texas, field.

## DEDUCTIONS FROM GROSS INCOME

The increase of \$273,141.13 in Interest on Funded Debt—Bonds and Notes—is made up as follows:

	Principal	Interest
Bonds issued this year and the interest accrued thereon.....	\$34,537,000.00	\$1,178,680.10
Bonds retired this year and the difference between the interest accrued thereon this year and a full year's interest last year.....	*35,921,879.14	*1,127,780.74
Decrease in outstanding bonds held by the public.....	*51,384,879.14	
Increase in interest accrued this year as compared with last year on the bonds so issued and retired.....		\$50,899.36
Difference between a full year's interest accruing this year on bonds issued last year as shown on page 15 of last year's report.....		610 253.97
Net increase in interest paid on bonds held in sinking funds.....		49,913.50
Less		
Interest accrued last year on bonds retired last year as shown on page 15 of last year's report.....		\$437,925.70
Net increase.....		\$273,141.13

The net decrease of \$1,384,879.14 in the principal of the outstanding funded debt will result in a decrease of about \$190,000 in the annual interest payments.

The increase in the account Interest on Unfunded Debt, is due, principally, to interest paid during the year on deferred payment of claims, which have been in dispute for several years.

The dividends paid for 1928 were appropriated from the profit and loss surplus and, therefore, do not appear in the income account. Payments for 1928 amounted to \$22,342,844.00, compared with \$22,342,929.00 for 1927. The figures for this year include \$30.00, and those for last year, \$75.00, representing dividends on stocks of Transportation System Companies held by the public.

\*Items in bold face represent decreases.

## TRANSPORTATION OPERATIONS—SOUTHERN PACIFIC LINES

The following table shows the Net Railway Operating Income and Traffic Statistics of the Transportation System for the year 1928 compared with those for the year 1927:

	Year Ended December 31, 1928	+Increase	Per
		Decrease	Cent.
1. Average miles of road operated.....			
2. Freight			
3. Passenger	50,353,632.20	-\$2,887,296.09	5.42
4. Mail and express	12,184,801.38	+\$2,428,050.56	3.64
5. All other transportation	8,808,333.75	-\$603,792.03	6.42
6. Incidental	7,399,352.36	-\$213,053.34	2.80
7. Joint facility—Credit	307,803.86	+\$90,846.34	22.79
8. Joint facility—Debit	1,310,776.87	-\$18,688.20	1.45
9. Total railway operating revenues.....	\$300,104,027.55	+\$82,358,621.39	.79
10. Maintenance of way and structures.....			
11. Maintenance of equipment.....	\$38,753,847.86	-\$2,218,242.45	5.41
12. Total maintenance	51,676,503.65	+\$945,197.01	1.86
13. Traffic	7,415,258.65	+\$459,716.08	6.77
14. Transportation	10,180,320.28	-\$305,914.55	.29
15. Miscellaneous operations	4,961,450.00	+\$237,287.40	4.56
16. General	11,468,543.92	+\$131,094.46	1.16
17. Transportation for investment—Credit	1,494,161.02	-\$219,552.65	17.23
18. Total railway operating expenses.....	\$216,734,202.82	-\$1,444,989.50	.66
19. Net revenue from railway operations.....	\$83,369,824.73	+\$3,803,610.89	4.78
20. Railway tax accruals.....	21,525,425.43	+\$311,913.08	1.47
21. Uncollectible railway revenues.....	75,568.19	-\$56,555.50	42.80
22. Railway operating income.....	\$61,768,831.11	+\$3,548,253.31	6.09
23. Equipment rents—Net.....	7,018,072.68	+\$658,184.73	10.35
24. Joint facility rents—Net.....	*157,342.64	+\$13,964.21	10.35
25. Net railway operating income.....	\$54,908,101.07	+\$3,304,032.79	6.40

TRAFFIC STATISTICS  
(Steam Rail Lines)

Freight Traffic	Year Ended December 31, 1928	+Increase —Decrease	Per Cent.
26. Freight service train-miles.....	28,674,552	+ 1,027,286	3.72
27. Tons carried—revenue freight.....	61,259,597	+ 1,13,636	2.88
28. Ton-miles—revenue freight.....	15,695,443,557	+ 562,085,317	3.78
29. Loaded cars per train.....	27.97	+ .30	1.08
30. Net tons per train—all freight.....	613.14	+ 6.25	1.01
31. Revenue per ton-mile—revenue freight.....	1.358 cents	+ .010 cents	.73
32. Average distance carried—revenue freight (miles) .....	256.21	+ 2.07	.81

Passenger Traffic	Year Ended December 31, 1928	+Increase —Decrease	Per Cent.
33. Passenger service train-miles.....	26,412,863	+ 905,407	3.31
34. Passengers carried—revenue.....	12,932,911	+ 970,566	6.98
35. Passenger-miles—revenue.....	1,737,915,936	+ 67,790,955	3.75
36. Passengers per train—revenue passengers.....	63.72	+ .61	.95
37. Passenger revenue per passenger-mile.....	2.755 cents	+ .062 cents	2.20
38. Average distance carried—revenue passengers (miles) .....	134.38	+ 4.51	3.47

The following tabulation gives the transportation operations for the five years 1924, 1925, 1926, 1927 and 1928, compared with 1917, the last year prior to Federal control, and with 1921, the first complete year subsequent to Federal control, the figures being given in round thousand dollars:

	1928	1927	1926	1925	1924	1921	1917
Operating revenues:							
\$300,104	\$297,745	\$298,801	\$295,102	\$291,727	\$269,494	\$193,971	
Per cent. of 1917:	154.72	153.50	154.04	152.14	150.40	.....	.....
Per cent. of 1921:	111.36	110.48	110.87	109.50	108.25	.....	.....
Operating expenses:	\$216,734	\$218,179	\$215,595	\$217,762	\$214,812	\$212,572	\$120,601
Per cent. of 1917:	179.71	180.91	178.77	180.56	178.12	.....	.....
Per cent. of 1921:	101.96	102.64	101.42	102.44	101.05	.....	.....
Operating ratio:	72.22	73.28	72.15	73.79	73.63	73.88	62.17
Net revenue from railway operations:	\$83,370	\$79,566	\$82,206	\$77,340	\$76,915	\$56,922	\$73,370
Per cent. of 1917:	113.63	108.44	113.41	105.41	104.83	.....	.....
Per cent. of 1921:	146.46	139.78	146.18	125.87	135.12	.....	.....
Railway tax accruals:	\$21,525	\$21,214	\$21,477	\$21,340	\$20,909	\$15,539	\$13,792
Per cent. of 1917:	156.07	153.81	155.73	154.73	151.80	.....	.....
Per cent. of 1921:	138.52	136.52	138.21	137.33	134.56	.....	.....
Net railway operating income:	\$54,908	\$51,604	\$55,797	\$50,043	\$50,475	\$35,947	\$62,253
Per cent. of 1917:	88.20	82.89	89.63	80.39	81.08	.....	.....
Per cent. of 1921:	152.75	143.56	155.22	139.21	140.42	.....	.....

Traffic units (ton-miles, all freight, plus three times passenger-miles)—millions:	23,149	22,908	22,679	22,584	21,929	17,451	20,877
Per cent. of 1917:	110.88	109.73	108.63	108.18	105.04	.....	.....
Per cent. of 1921:	132.65	131.27	129.96	129.41	125.66	.....	.....

As has been stated in reports for previous years, the Transportation Act of 1920 provides that the railways shall receive a fair return upon the aggregate value of railway property held for and used in the service of transportation, such fair return being 5% per cent., as last fixed by the Interstate Commerce Commission, under authority of the Act. Notwithstanding a steady increase in the volume of traffic handled, and the marked gain in operating efficiency as reflected in net revenue from railway operations, the existing rate structure, during each year since enactment of the Transportation Act, has failed to give your Company the fair return contemplated by the Act, the rate of return upon the book value of road and equipment of the lines constituting the Transportation System having been as follows:

1921 .....	3.36%
1922 .....	4.29%
1923 .....	4.81%
1924 .....	3.99%
1925 .....	3.77%
1926 .....	3.98%
1927 .....	3.59%
1928 .....	3.78%

Average return for 8 years..... 3.94%

The total Railway Operating Revenues for 1928 amounted to \$300,104,027.55, and were the largest in the Company's history, exceeding the previous high record established in 1926 by \$1,303,029.49, and exceeding last year by \$2,358,621.39. This was the result of an increase of 562,085,317 ton-miles, or 3.71 per cent., over the record established last year, in the volume of revenue freight carried by your lines. This increase in the volume of freight carried resulted in an increase of \$5,744,246.83 in freight revenue, which was partly offset by a decrease of \$2,887,296.09 in passenger revenue, due, principally, to automobile competition, and by a net decrease of \$498,329.35 in other operating revenues, the result, principally, of a decrease in the earnings of tank steamers.

The increase in operating revenues was accompanied by a decrease of \$1,444,989.50 in operating expenses, an increase of \$311,913.08 in taxes, and an increase of \$187,665.02 in equipment and joint facility rents and other charges, the result being an increase of \$3,304,032.79, or 6.40 per cent., in Net Railway Operating Income.

On the Pacific Lines, freight revenues increased \$5,442,603.10, or 3.53 per cent. This increase resulted from increased tonnage of nearly all products of agriculture, except oranges and barley; increased tonnage of forest products; and increased tonnage of manufactured and miscellaneous commodities, partly offset by a decrease in the tonnage of mineral products. There was a decrease in the orange crop, which caused a decrease in revenue of about \$800,000. On the other hand, there was an increase in the apple crop which brought a substantial increase in revenue. Other fruit crops were also greater, and the increased tonnage resulted in increased revenue notwithstanding a 7% per cent. reduction in rates to transcontinental points, effective February 10, 1928, on all deciduous fruits except apples, which caused a decrease in the revenue from grapes, although the tonnage handled was greater than in 1927. Freight revenue was also increased by a heavy westbound movement of corn. These conditions, together with greatly improved crops of canteloupes, watermelons, sugar beets and fresh vegetables (particularly lettuce), account for the increased revenue from agricultural products. The increase in revenues from forest products is the result of a more stabilized condition of the lumber industry; an improved demand for lumber in the East; and a large increase in the box shook movement, caused by the increased production of fruits, vegetables and melons. The increase in revenue from manufacturers and miscellaneous commodities is the result, principally, of an increase in the tonnage of automobiles and parts, the production of automobiles in 1928 having exceeded that of 1927 by approximately 950,000 cars and trucks; of an increase in the tonnage of gasoline, brought about, principally, by the increased

production and distribution of automobiles; and of a large increase in the tonnage of potash fertilizer originating, principally, at Trona, California. The decrease in the tonnage of mineral products was due, principally, to a decrease in coal shipments from Dawson, New Mexico, to the Chicago, Rock Island & Pacific Railway, for locomotive use; and to a decreased movement of coal from Utah to California, caused by producers not making the usual price reductions on coal for summer storage.

On the Texas and Louisiana Lines, freight revenues increased \$666,099.81, or 1.26 per cent. This increase was the result, principally, of increased tonnage of agricultural products, practically all commodities under this classification, except bananas, showing gratifying increases, due, principally, to larger crops of cotton, rice, melons and potatoes, in the territory served by these lines, and to increased tonnage of fruits, fresh vegetables and other perishables from California and from the Rio Grande Valley. The decreased movement of bananas is due to the fact that a large proportion of this tonnage formerly received at Gulf ports for the West, is now moving via the Panama Canal. There was an increase in the tonnage of automobiles and parts, due to increased production; and an increase in the tonnage of brick, cement, tile and other manufactures, due to increased building activities and to generally improved business conditions. The above mentioned increases were partly offset by a decrease in the tonnage of animal products, due to a shortage of cattle which caused higher prices for meat and packing house products, thus decreasing the demand therefor; by a decrease in the tonnage of forest products, due to increased use of substitutes and of fir from the Northwest; by a decrease in the tonnage of petroleum and gasoline, due to shifting of trade territory and to pipe line and truck competition; and by decreased tonnage of iron and steel articles and machinery, due, principally, to decreased construction of pipe line and oil tank facilities.

On the Southern Pacific Steamship Lines, freight revenues decreased \$364,456.08, or 3.84 per cent. This decrease is due, principally, to a decrease in the tonnage of cotton and cotton linters, the result of a short cotton crop in Texas and Louisiana last year, and of the strike in the New England textile mills; to Panama Canal and tramp steamer competition on railroad ties; and to the after effects of the flood, last year, in the lower Mississippi Valley.

Passenger revenues decreased \$2,887,296.09, or 5.42 per cent. of which a decrease of \$1,840,742.20 allocated to the Pacific Lines, and a decrease being partly offset by an increase of \$112,395.32 on Southern Pacific Steamship Lines. While the decrease on the rail lines is attributable in part to the competition of the Panama-Pacific Line, which, in January, 1928, established a steamship passenger service between Atlantic and Pacific ports, via the Panama Canal; and to increased travel to Europe, which has diverted tourists from the Pacific Coast; the major part of the decrease is due to the more extensive use of private automobiles and to the continued and increased competition of motor coach lines, which, through coordination and consolidation of services, are reaching out for transcontinental and other long haul traffic. The increase of \$112,395.32 on Southern Pacific Steamship Lines is attributable to the placing in service during 1928 of the new S. S. "Dixie," of 12,440 tons displacement, which has attracted considerable new business owing to her superior accommodations.

The following tabulation, giving for the past five years the fluctuations in gross passenger revenue, contrasted with the fluctuations in gross revenues other than passenger, indicates the extent to which automobile competition has affected the passenger business of your lines:

Year	Gross Revenues Other Than Passenger		
	For the Year	Decrease During Year	Increase During Year
Year ended December 31, 1923.....	\$62,158,876	.....	\$225,045,759
Year ended December 31, 1924.....	\$58,818,668	\$3,340,208	\$22,008,352
Year ended December 31, 1925.....	56,292,247	2,526,421	\$28,809,507
Year ended December 31, 1926.....	55,262,330	1,029,917	243,533,668
Year ended December 31, 1927.....	53,240,928	2,021,402	244,501,478
Year ended December 31, 1928.....	50,353,632	2,887,298	249,750,395
Average per year for the five years.....	54,793,561	2,361,049	241,902,280

The gross revenues of your lines from all business, other than passenger, increased from \$225,045,759 for the year 1923, to \$249,750,395 for the year 1928. This is an average increase per year for the five years of \$4,940,927, and represents a steady increase in the traffic handled, implying a condition of prosperity, which, ordinarily, would indicate that there should be a corresponding proportionate increase in passenger revenue. As will be seen, however, passenger revenue, instead of increasing, has shown a steady decline, decreasing from \$62,158,876 for the year 1923, to \$50,353,632 for the year 1928, or an average decrease for each year of the five year period of \$2,361,049. As indicated in the annual reports for the years under consideration, this decline is due, chiefly, to the increasing inroads of motor coach and other automobile competition. To meet this condition, and to effect certain economies in train service, your Company caused the incorporation, in April, 1927, of the Southern Pacific Motor Transport Company, which commenced operations last year by the establishment of certain motor coach lines, as set forth on page 24 of last year's annual report. Since its establishment last year, this service has been actively extended, which matter is dealt with under the heading "Southern Pacific Motor Transport Company," further on in this report.

All other Transportation Revenue decreased \$603,792.03, or 6.42 per cent. This is the result, principally, of a decrease in the revenue of Southern Pacific Steamship Lines, due to falling off in the demand for tank steamers for transportation of commercial oil and to decreased rates on the tonnage handled. This decrease in the revenue of the Steamship Lines was partly offset by increased revenues of the rail lines from switching and from the operation of automobile ferries.

Incidental Revenue decreased \$213,053.34, or 2.80 per cent., due, principally, to abnormal revenues last year for detouring trains in the flood districts of Louisiana, and to credit adjustments of miscellaneous rentals last year.

Maintenance of Way and Structures decreased \$2,218,242.45, or 5.41 per cent. This decrease is due, principally, to the completion in the early part of last year of the work, begun in 1926, of bringing certain portions of your line up to main line standard, to fit them for use as part of through traffic routes established through the construction of new lines, to a decrease in the charge to operating expenses on account of retirements in connection with additions and betterments, which is the result of the large expenditures for improvements to the property in previous years; to a decrease in the renewals, brought about by the constantly increasing percentage of treated ties in the track; and to decreases in prices of maintenance materials. These decreases were partly offset by increases in the wages paid to maintenance forces. The following table, giving the principal items of materials used in repairs and renewals during the past six years, shows that the property has been maintained up to your Company's usual high standard:

MATERIAL USED IN REPAIRS AND RENEWALS					
	1928	1927	1926	1925	1924
New steel rail, track miles .....	506.77	536.82	510.14	349.00	403.32
Ties, number .....	4,289,056	4,431,225	4,767,408	3,973,715	3,971,158
Ties, number per mile .....	214	225	248	252	245
Tie-plates, number .....	6,981,084	6,442,358	7,514,596	6,162,239	5,485,332
Piling, linear feet .....	666,291	403,417	489,580	883,017	766,208
Lumber, feet b.m. ....	23,540,807	24,057,955	27,529,359	37,661,611	32,023,097

Maintenance of Equipment increased \$945,197.01, or 1.86 per cent., which is the result, principally, of the increase in the volume of freight traffic handled by your lines.

Traffic Expenses increased \$459,716.08, or 6.77 per cent., due, principally, to increases in the expenses of outside agencies, in advertising, and in expenses of industrial and development bureaus.

## MANUFACTURERS RECORD

April 11, 1929

Transportation Expenses decreased \$303,914.55, or .29 per cent., which was made up of an increase of \$211,855.70 on the rail lines and a decrease of \$517,770.25 on the Steamship Lines. The increase on the rail lines was caused, mainly, by increases aggregating \$1,433,000 in the pay of yardmen and trainmen, due to an increase of 3.71 per cent. in the ton-miles of freight traffic handled and to increases in the rates of pay (including back pay for the year 1927 for locomotive firemen); and by decreases of \$1,038,000 in the cost of fuel for locomotives, due to the decreased price of fuel and to the saving in fuel consumption. The constant campaign carried on for years has reduced fuel consumption in locomotives has been reflected by a gradual and large reduction in the amount of fuel used in proportion to the ton-miles of traffic moved. The reduction in pounds of fuel used per 1,000 gross ton-miles in 1928, compared with 1927, amounted to 1.22 per cent. in passenger service, and 2.86 per cent. in freight service. The value of the economy realized in 1928, compared with 1927, amounted to \$456,920, and in 1928, compared with 1913, to \$12,158,588. The following table shows results obtained in fuel economy in 1928, compared with the preceding two years, and with the year 1913:

Comparison of 1928 With							
Locomotive Fuel							
Performance	1928	1927	1926	1913	1927	1926	1913
Pounds of fuel per 1,000 ton-miles:							
Passenger service ...	124.03	125.50	126.35	206.67	-1.22%	-1.84%	-39.99%
Freight service ...	116.53	119.88	124.67	192.93	-2.86%	-6.54%	-39.57%
Value of fuel saved in							
1928 over 1927 ...							\$456,920
1928 over 1926 ...							1,043,644
1928 over 1913 ...							12,158,588

The decrease in Transportation Expenses of the Steamship Lines was the result, principally, of a decrease in the operation of tank steamers.

Miscellaneous Operations decreased \$237,287.40, or 4.56 per cent., due, principally, to decreased dining car operations resulting from decreased passenger travel.

General Expenses increased \$121,094.46, or 1.16 per cent., due, principally, to increased pension and relief department expenses of \$104,000 and to an increase in valuation expenses of \$76,000.

Railway Tax Accruals increased \$311,913.08, or 1.47 per cent., due to increased income taxes and to increased rates and assessments for local and state taxes.

## CAPITAL STOCK—SOUTHERN PACIFIC LINES

The decrease during the year in capital stocks of Southern Pacific Company and Transportation System Companies held by the public amounted to \$600.00, as follows:

Capital stocks of Transportation System Companies, acquired from the Public ..... \$600.00

## FUNDED DEBT—SOUTHERN PACIFIC LINES

To provide for the construction and acquisition of new rolling stock, an equipment trust, known as "Southern Pacific Company Equipment Trust, Series K," was created, and an issue of \$4,815,000, par value, of Four and One-Half Per Cent. Equipment Trust Certificates authorized, all of which were issued during the year, pursuant to authority of Interstate Commerce Commission's order dated August 14, 1928, in Finance Docket No. 7062. The certificates are dated August 1, 1928; they mature serially, in lots of \$321,000 on August 1 of each year from 1929 to 1943, both inclusive; and have attached dividend warrants entitling the holders to dividends at the rate of 4% per cent. per annum from August 1, 1928, payable semi-annually on February 1 and August 1. In accordance with the terms of the trust all certificates were guaranteed by the Southern Pacific Company.

On January 26, 1928, the Executive Committee of the Southern Pacific Company authorized the issue of \$29,400,000, par value, of Forty-Year Four and One-Half Per Cent. Gold Bonds, to provide funds for the retirement of a like amount of Twenty-Year Five Per Cent. (Collateral Trust) Gold Bonds, which latter bonds were called for redemption on May 1, 1928. All the bonds so authorized were issued during the year, pursuant to authority of Interstate Commerce Commission's order dated February 25, 1928, in Finance Docket No. 6722. By issuing order dated February 25, 1928, the Southern Pacific Company, in exchange for \$29,400,000 of Four and One-Half Per Cent. Bonds, to retire a like amount of Five Per Cent. Bonds, a considerable reduction in fixed charges will be effected. The new bonds are dated March 1, 1928, are payable on March 1, 1968, and bear interest at the rate of 4½ per cent. per annum from March 1, 1928, payable semi-annually on March 1 and September 1.

The net decrease during the year in funded debt of Southern Pacific Company and Transportation System Companies held by the public amounted to \$1,384,879.14, as follows:

## FUNDED DEBT RETIRED DURING THE YEAR

Southern Pacific Company Four and One-Half Per Cent. Equipment Southern Pacific Company Equipment Trust Certificates maturing during the year, paid off ..... \$5,520,000.00  
 Southern Pacific Company Twenty-Year Five Per Cent. (Collateral Trust) Gold Bonds, called for redemption May 1, 1928 ..... 29,400,000.00  
 Alameda & Sacramento Mountain Railway Company Thirty-Year First Mortgage Five Per Cent. Bonds, purchased from the public and held alive in treasury of Southern Pacific Company ..... 118,000.00  
 Central Pacific Railway Company Three and One-Half Per Cent. Mortgage Bonds:  
 Retired from proceeds of sale of lands ..... \$438,000.00  
 Retired by sinking fund ..... 25,660.00 461,660.00  
 Bonds of El Paso & Southwestern subsidiary companies, acquired from the public during the year, in exchange for an equal amount of El Paso & Southwestern R. R. Co. First and Refunding Mortgage Five Per Cent. Bonds, owned by Southern Pacific Company, pursuant to El Paso & Southwestern Refunding Plan, approved by Interstate Commerce Commission, December 26, 1923 ..... 322,000.00  
 Other funded debt held by the public retired during the year ..... 100,279.14  
 Total funded debt held by the public retired during the year ..... \$35,921,879.14

Less:

## FUNDED DEBT ISSUED DURING THE YEAR

Southern Pacific Company Four and One-Half Per Cent. Equipment Trust Certificates, Series K, issued during the year to provide for the construction and acquisition of new rolling stock ..... \$4,815,000.00  
 Southern Pacific Company Forty-Year Four and One-Half Per Cent. Gold Bonds, issued during the year to provide funds for the retirement of a like amount of Twenty-Year Five Per Cent. (Collateral Trust) Gold Bonds, which were called for redemption May 1, 1928, \$29,400,000.00  
 El Paso & Southwestern Railroad Company First and Refunding Mortgage Five Per Cent. Bonds, delivered to the public during the year, in exchange for an equal amount, par value, of bonds of El Paso & Southwestern subsidiary companies, in accordance with El Paso & Southwestern Refunding Plan, as explained above ..... 322,000.00  
 Total funded debt issued to the public during the year ..... 34,537,000.00  
 Decrease in funded debt held by the public ..... \$1,384,879.14

## BALANCE SHEET OF SOUTHERN PACIFIC LINES

SOUTHERN PACIFIC COMPANY AND TRANSPORTATION SYSTEM COMPANIES, COMBINED Assets—December 31, 1928, Compared With December 31, 1927. Excluding Offsetting Accounts

	December 31, 1928	+Increase —Decrease
Investments		
Investment in road and equipment ..... \$1,457,765,340.83	+\$25,446,588.36	
Improvements on leased railway property ..... 603,929.03	— 1,082,151.29	
Banking funds ..... 21,351,455.82	— 3,732,570.82	
Deposits in lieu of mortgaged property sold ..... 2,220,650.46	— 314,036.58	
Miscellaneous physical property ..... 2,940,553.85	— 447,100.00	
Investments in affiliated companies:		
Stocks ..... 367,381,808.72	— 1,236,596.01	
Bonds ..... 148,359,675.22	— 3,732,570.82	
Stocks } Cost inseparable ..... 54,774,260.15	— 2,249,825.00	
Bonds } Cost inseparable ..... 2,249,825.00	— 2,249,825.00	
Notes ..... 24,419,757.93	— 343,621.09	
Advances ..... 45,914,019.83	— 3,732,570.82	
Other investments:		
Stocks ..... 61,878.12	— 22,634.74	
Bonds ..... 2,576,751.83	— 6,400.00	
Notes ..... 557,179.85	— 127,646.03	
Advances ..... 43,196.29	— 5,739.67	
Miscellaneous ..... 1,177,395.08	— 92,208.62	
Total ..... \$2,132,397,668.03	+\$31,881,468.29	

	Current Assets	
Cash ..... \$21,449,427.17	+\$394,872.56	
Demand loans and deposits ..... 10,617,501.41	— 1,596,687.85	
Special deposits ..... 46,598.60	— 45,153.96	
Loans and bills receivable ..... 762,298.72	— 43,954.46	
Traffic and car-service balances receivable ..... 3,467,770.41	— 441,624.39	
Net balance receivable from agents and conductors ..... 2,907,409.85	— 79,136.80	
Miscellaneous accounts receivable ..... 10,638,079.29	— 3,382,577.53	
Material and supplies ..... 33,154,683.74	— 3,395,167.53	
Interest and dividends receivable ..... 2,687,794.31	— 112,414.08	
Rents receivable ..... 5,000.90	— 1,701,323.38	
Other current assets ..... 1,846,093.98	— 4,153,995.96	
Total ..... \$90,582,637.48		

	Deferred Assets	
Working fund advances ..... \$136,390.78	+\$26,840.88	
Insurance and other funds ..... 35,810.00	— 10,450.00	
Other deferred assets ..... 2,626,168.47	— 287,840.00	
Total ..... \$2,798,369.25	+\$225,130.88	

	Unadjusted Debts	
Rents and insurance premiums paid in advance ..... \$208,217.07	+\$67,368.87	
Discount on capital stock ..... 3,813,600.00	— 175,000.00	
Discount on funded debt ..... 3,281,296.83	— 947,204.77	
Other unadjusted debts ..... 10,296,725.16	— 343,466.86	
Securities issued or assumed—Unpledged ..... (a) 2,179,575.00	— 101,250.00	
Securities issued or assumed—Pledged ..... (a) 101,250.00	—	
Total ..... \$17,599,839.06	+\$396,106.78	
Grand total ..... \$2,243,378,453.82	+\$36,756,701.91	

(a) Excluded from total assets, and a corresponding amount excluded from outstanding funded debt, in accordance with regulations of the Interstate Commerce Commission.

## BALANCE SHEET OF SOUTHERN PACIFIC LINES

SOUTHERN PACIFIC COMPANY AND TRANSPORTATION SYSTEM COMPANIES, COMBINED Liabilities—December 31, 1928, Compared With December 31, 1927, Excluding Offsetting Accounts

	December 31, 1928	+Increase —Decrease
Liabilities		
Capital Stock		
Southern Pacific Company ..... \$372,380,905.64		
Transportation System Companies ..... 397,891,900.00		
Total ..... \$770,272,805.64		
Held by the public ..... \$372,402,165.64	— \$600.00	
Held within the system ..... 397,870,640.00	— 137,400.00	
Total stock ..... \$770,272,805.64	— 138,000.00	
Premium on capital stock of Southern Pacific Company ..... \$6,304,440.00		
Total ..... \$776,577,245.64	— 138,000.00	
Governmental Grants		
Grants in aid of construction ..... \$502,601.87	+\$152,847.44	
Long Term Debt		

Funded debt unmatured:		
Southern Pacific Company ..... \$238,836,885.00		
Transportation System Companies ..... 497,188,969.19		
Total ..... \$736,025,854.19		
Held by the public:		
Held within the system:		
Total funded debt:		
Nonnegotiable debt to affiliated companies:		
Open accounts ..... 52,264,373.78	+\$5,682,964.61	
Total ..... \$788,290,227.97	+\$4,813,552.15	
Current Liabilities		
Traffic and car-service balances payable ..... \$40,000.00	+\$21,284.95	
Audited accounts and wages payable ..... 4,514,406.96	— 769,630.20	
Miscellaneous accounts payable ..... 16,856,184.14	— 1,060,600.02	
Interest matured unpaid ..... 1,533,580.39	— 77,564.03	
Interest payable January 1st ..... 264,626.55	— 9,090.50	
Dividends matured unpaid ..... 3,793,162.50	— 7,460.00	
Dividends payable January 1st ..... 39,363.21	— 8,928.00	
Funded debt matured unpaid ..... 5,585,713.30	—	
Unmatured interest accrued ..... 81,900.00	— 9,000.00	
Unmatured rents accrued ..... 6,792,963.22	— 286,496.31	
Other current liabilities:		
957,819.59	— 140,116.42	
Total ..... \$40,626,525.88	+\$804,863.75	
Deferred Liabilities		
Other deferred liabilities ..... \$351,034.87	+\$46,583.62	
Unadjusted Credits		
Tax liability ..... \$5,650,175.14	+\$90,826.22	
Insurance and casualty reserves ..... 3,282,326.21	— 162,209.01	
Accrued depreciation—Road ..... 2,799,040.92	— 42,013.69	
Accrued depreciation—Equipment ..... 113,714,185.63	— 9,768,346.65	
Other unadjusted credits ..... 40,312,641.76	— 1,803,457.69	
Total ..... \$168,758,369.66	+\$8,259,937.88	

## Corporate Surplus

Additions to property through income and surplus..	\$9,596,724.00	+	\$292,102.83
Funded debt retired through income and surplus..	24,628,246.05	-	237,272.47
Sinking fund reserves.....	20,516,844.10	+	1,093,980.94
Appropriated surplus not specifically invested.....	3,818,177.83		
Total appropriated surplus.....	<u>\$58,619,991.98</u>	+	<u>\$1,150,811.10</u>
Profit and loss—Balance.....	409,650,445.98	+	21,866,105.97
Total corporate surplus.....	<u>\$468,270,437.93</u>	+	<u>\$22,816,917.07</u>
Grand total .....	<u>\$2,243,378,453.82</u>	+	<u>\$36,756,701.91</u>

## INVESTMENT ASSETS—SOUTHERN PACIFIC LINES

The following is a brief description of the investment assets of the Transportation System, reported in the balance sheet, viz:

## INVESTMENT IN TRANSPORTATION PROPERTY..... \$1,458,369,269.86

Book value of investments in transportation property carried on the books of the companies comprising the Transportation System, consisting of 13,634 miles of first main track, 972 miles of additional main track, 5,895 miles of yard tracks and sidings, the Company's terminals at Galveston, a ten-story office building in San Francisco, 2,437 locomotives, 2,865 passenger-train cars, 82,469 freight-train cars, 5,713 company service cars, 23 ocean steamships, 2 river steamships, 13 automobile ferry boats, 14 passenger ferry and car transfer boats, 11 tugs, 73 barges, and 20 other vessels, the whole forming a transcontinental system extending from New York via New Orleans and Galveston, to San Francisco, California, and to Portland, Oregon, with a line extending from Ogden, Utah, to San Francisco, California.

## SINKING FUNDS.....

Sinking funds for the redemption of outstanding funded debt, consisting principally of \$19,700,000, par value, bonds of Transportation System Companies, \$1,838,000, par value, bonds of other companies, and \$272,143.79 cash in hands of Trustees.

## MISCELLANEOUS PHYSICAL PROPERTY.....

Book value of terminal and other real estate acquired in anticipation of future use.

## INVESTMENTS IN AFFILIATED COMPANIES.....

Investments in securities of Transportation System Companies, which are included in the outstanding obligations as shown by the balance sheet, but which are owned within the system:

Investments in securities of, and advances to, Solely Controlled Affiliated Companies and Jointly Controlled Affiliated Companies collateral to, but not a part of, the Transportation System, representing, principally, investments as follows:

Electric Railways in California (full ownership), owning 45 electric locomotives, 1 steam locomotive, 4 gas-electric locomotives, 531 motor cars, 19 motor car trailers, 581 freight-train cars, 101 company service cars, and 1 gasoline launch—operated mileage..... 872.84

(The above railways also own 198 auto buses, 4 auto trucks, 2 auto service cars, and 1 auto business car used in operation of 212 miles of auto bus routes.)

Electric Railways (one-third ownership), owning 4 electric locomotives, 15 motor cars, 2 motor car trailers, 33 freight-train cars, and 2 company service cars—operated mileage..... 56.20

Steam Railways (full ownership), owning 112 steam locomotives, 131 passenger-train cars, 1,251 freight-train cars, and 412 company service cars—operated mileage..... 1,535.43

Steam Railways (half ownership), owning 90 steam locomotives, 235 passenger-train cars, 1,631 freight-train cars, 381 company service cars, 8 automobile and passenger ferry boats, and 1 gasoline launch—operated mileage..... 804.49

(The above jointly owned steam railways include the Northwestern Pacific Railroad, with operated mileage of 477.56, full control of which was acquired in January, 1929, as shown further on under the heading "Acquisition of full control of the Northwestern Pacific Railroad Company.")

Total operated mileage of railways collateral to, but not a part of, the Transportation System. 3,268.96

Automotive Transportation Companies (full ownership), owning 151 auto buses, 6 auto business cars, 5 auto service cars, and 8 auto trucks, operating over 4,986 miles of auto bus routes. Although this service is operated independently, it is coordinated with, and constitutes an extension of, the steam train service of your Company's transportation lines;

Land Companies (full ownership), owning 8,789,273 acres of lands in various states traversed by the Southern Pacific Lines; and 5,902 town lots. Of these town lots, 2,873 are located in the State of Texas; 644 in the State of Nevada; and 2,385 in the State of California, of which 955 are located in Los Angeles and vicinity;

Oil Companies (full ownership), owning 2,444 acres (including 1,925 acres fully owned and 519 acres jointly owned), and holding under lease 30,066 acres of producing and prospective oil lands in Texas and Louisiana, together with ownership of mineral rights in 84,159 acres of prospective oil lands in Texas. Number of producing wells, 144. Annual production, about 1,800,000 barrels;

Timber Lands (full ownership): 21,567 acres of timber lands and 44,925 acres of other lands, including 2 saw mills;

Coal Lands (full ownership): 22,688 acres of coal lands in Oregon and Colorado, 6,321 acres of prospective coal lands in Texas, and 2,502 acres of lignite, clay, and other lands in Texas and Louisiana;

Terminal Companies (full ownership), owning 25 acres of land in the City of Los Angeles, California, with improvements, including three two-story market buildings, and one seven-story, two six-story, and one four-story warehouse buildings situated on the line of Southern Pacific in the heart of the wholesale district of Los Angeles;

Southern Pacific Building Co. (full ownership), owning a nine-story office building at Houston, Texas;

Associated Pipe Line Co. (one-third ownership), owning 561 miles of oil pipe line serving California oil fields;

Pacific Fruit Express Co. (half ownership), operating 40,513 refrigerator cars serving Southern Pacific, Union Pacific, and Western Pacific lines; and

## Stock interest, as indicated, in following companies operating railroad terminal facilities:

El Paso (Texas) Union Passenger Depot Co., 50 per cent;  
Ft. Worth (Texas) Union Passenger Station Co., 50 per cent;  
Northern Pacific Terminal Co., (Portland, Ore.), 20 per cent;  
Ogdon (Utah) Union Railway & Dpot Co., 50 per cent;  
Union Terminal Co. (Dallas, Tex.), 12.50 per cent.

## OTHER INVESTMENTS..... 6,636,981.65

Of this amount, \$2,202,383.61 represents cash in hands of Trustee, to be applied in payment for new equipment; and the remainder represents, principally, investments in outside securities.

Total Investments..... \$2,132,397,608.03

## ROAD AND EQUIPMENT—SOUTHERN PACIFIC LINES

The increase during the year in Investment in Road and Equipment of the Transportation System as shown in the balance sheet, amounted to \$25,446,588.36, as follows:

Expenditures for Road Extensions ..... \$902,987.75  
Expenditures for Rolling Stock ..... 8,065,710.68  
Expenditures for Floating Equipment ..... 270,145.38  
Expenditures for Other Additions and Betterments..... 22,048,416.41

Total Expenditures ..... \$31,287,260.22

**Add**  
Investment in Road and Equipment of the Texas Midland Railroad at April 1, 1928, on which date such company was taken into the Transportation System, as explained on page 25..... 3,605,449.69  
\* \$34,892,709.91

**Deduct**  
Improvements to property held under lease, included in above expenditures, transferred to "Improvements on Leased Railway Property" ..... \$53,099.47  
Adjustments in construction accounts, completed lines 95,326.17  
Property retired, equipment vacated, and other adjustments ..... 9,297,695.91 9,446,121.55

Net increase in Investment in Road and Equipment..... \$25,446,588.36

The following table shows the number of units of each class of rolling stock owned at December 31, 1928, and at December 31, 1927, and the number of units of each class added and retired during year:

Class	Owned Dec. 31, 1928	Owned Dec. 31, 1927	Changes During the Year
			Added * Retired
Locomotives	2,427	2,448	42 63
Passenger-train cars	2,805	2,896	69 160
Freight-train cars	82,469	82,213	1,457 1,231
Company service equipment	5,713	5,860	332 679

\*Includes 17 locomotives, 16 passenger-train cars, 191 freight-train cars, and 16 units of company service equipment, acquired with Texas Midland Railroad, taken into System April 1, 1928.

## BALANCE SHEET AND INCOME ACCOUNT OF SOLELY CONTROLLED AFFILIATED COMPANIES

Below will be found a condensed balance sheet as of December 31, 1928, and a condensed income account for the year 1928, of all separately operated Solely Controlled Affiliated Companies, combined:

## BALANCE SHEET

	Assets	Dec. 31, 1928
1. Property investment .....	.....	\$253,022,652.95
2. Sinking funds .....	.....	319,460.86
3. Investments in affiliated companies—Stocks .....	.....	809,090.12
4. Investments in affiliated companies—Bonds .....	.....	418,950.00
5. Investments in affiliated companies—Advances .....	.....	38,502,075.07
6. Other investments .....	.....	17,591,850.62
7. Cash .....	.....	1,236,552.90
8. Accounts receivable .....	.....	3,307,709.22
9. Material and supplies .....	.....	3,819,108.23
10. Merchandise .....	.....	485,021.73
11. Deferred assets .....	.....	1,986,023.40
12. Discount on securities .....	.....	11,196,338.96
13. Other unadjusted debits .....	.....	19,880,090.33
14. Total assets .....	.....	\$352,554,924.39

## Liabilities

15. Capital stock .....	.....	*\$148,471,460.00
16. Premium on capital stock .....	.....	535,151.75
17. Funded debt:		
(a) Held by the public .....	.....	\$30,864,000.00
(b) Held within the system .....	.....	29,968,000.00
(c) Total .....	.....	60,832,000.00
18. Nonnegotiable debt to affiliated companies .....	.....	64,501,215.57
19. Current Liabilities .....	.....	3,945,556.47
20. Deferred Liabilities .....	.....	122,586.19
21. Accrued depreciation .....	.....	14,330,904.60
22. Reserves for amortization of property investment .....	.....	10,666,052.64
23. Other unadjusted credits .....	.....	13,896,426.60
24. Total Liabilities .....	.....	\$316,701,353.82
25. Additions to property through income and surplus .....	.....	\$1,434,340.97
26. Sinking fund reserves .....	.....	364,686.52
27. Appropriated surplus not specifically invested .....	.....	700,000.00
28. Profits and loss—Balance .....	.....	33,354,543.08
29. Total corporate surplus .....	.....	\$35,853,570.57
30. Grand total .....	.....	\$352,554,924.39

## INCOME ACCOUNT

	Year Ended Dec. 31, 1928
31. Operating revenues .....	\$34,477,153.69
32. Operating expenses (including depreciation) .....	27,786,270.62
33. Net revenue from operations .....	\$6,690,883.07
34. Taxes .....	2,549,612.56
35. Uncollectible railway revenues .....	204.66
36. Equipment and joint facility rents—Net .....	401,957.28

April 11, 1929

37. Net operating income.....	\$3,739,108.57
38. Nonoperating income .....	1,242,544.80
39. Gross income .....	\$4,981,653.37
40. Interest on funded debt.....	\$2,994,184.77
41. Other deductions from gross income.....	1,139,444.56
42. Total deductions .....	\$4,133,629.33
43. Net income .....	\$818,024.04
44. Income applied to sinking and other reserve funds.....	\$31,820.00
45. Income balance transferred to credit of profit and loss.....	\$816,204.04

The amount of outstanding capital stock includes \$1,300,000 owned by Directors and \$52,910.00 owned by the public; the remaining \$148,417,250.00 being owned within the system.

#### CLAIM FOR CLOSING COLORADO RIVER BREAK

On page 22 of last year's report, mention was made of a suit brought under an Act of Congress, by your Company, in the Court of Claims, Washington, D. C., to enforce its claim against the Government of the United States, for the sum of \$1,113,677.42, expenditures incurred over twenty-one years ago, at the instance of President Roosevelt, in closing a break in the Colorado River to protect the Imperial Valley.

On April 12, 1928, United States Court of Claims Commissioner, John M. Lewis, filed his findings, allowing your Company, on account of its claim, the sum of \$1,012,700. Government counsel has however, excepted to the findings of the Commissioner. Briefs have been filed by your Company and by the Government and the case is now on the calendar of the Court of Claims for oral argument.

After submission to that Court, it may, by its judgment, affirm the findings of the Commissioner, or the Court may make independent findings of its own as to the amount due. The parties have the right to appeal. If no appeal be taken, it will then be in order for Congress, by appropriation, to pay the claim as finally determined.

#### NEW LINE FROM KLAMATH FALLS, OREGON, TO ALTURAS, CALIF.

On page 24 of last year's annual report, mention was made of the construction by your Company of a line extending from Klamath Falls, Oregon, through California, to a connection with the Nevada-California-Oregon Railway near Alturas, California, a distance of about 95 miles.

The construction of this line was resumed during 1928, and at the end of the year grading had been completed, ready for rails and ties, on about 12 miles, and was under way along the remaining 83 miles of the line. It is expected that the line will be placed in operation during the latter part of 1929.

#### EXTENSION OF OREGON, CALIFORNIA AND EASTERN RAILWAY

On pages 22 and 23 of last year's annual report, mention was made of the purchase by your Company of the Oregon, California & Eastern Railway, and the subsequent sale of one-half the capital stock of said Company to the Great Northern Railway Company, under authority of the Interstate Commerce Commission. On May 19, 1928, grading was started on an extension of the line eastward from its terminus at Sprague River to Bly, a distance of 26.42 miles, and on November 23, 1928, laying of rail into Bly was completed. Severe weather conditions in December caused cessation of work before the ballasting and the fencing of the line were completed. Work will be resumed early in the Spring of 1929, and, it is expected, will be completed within a few weeks from the date of commencement. This extension will tap a heavily timbered territory which has not been developed heretofore because of lack of transportation facilities. The opening up of this territory will result immediately in a considerable increase in the log traffic moving over the Oregon, California & Eastern Railway, a large part of which will be moved subsequently as lumber over the lines of your Company.

#### AUTOMATIC BLOCK SIGNALS

The mileage of your Company's Pacific Lines equipped with automatic block signals has been gradually increased from time to time, so that nearly all of its main lines are so protected. A program was adopted in the latter part of 1928 involving an expenditure of \$2,315,000, which will result in the complete equipment of all of such main lines some time in 1930.

#### SOUTHERN PACIFIC MOTOR TRANSPORT COMPANY

On page 24 of last year's report, mention was made of the incorporation in April, 1927, of the Southern Pacific Motor Transport Company, all of whose capital stock is owned by your Company. During the year 1928 the operations of the Southern Pacific Motor Transport Company have been actively extended, with the view of providing a more economical method of transportation by the substitution of motor coaches for steam and electric trains, and of providing supplementary feeder service for your Company's lines, where profitable. The substitution of motor coach service for steam train operation is being established where it is found more economical, upon securing approval of the necessary regulatory commissions. Such substitutions have been made upon several branch lines in California; and motor bus operations in Oregon have enabled your Company to discontinue to a great extent both electric and steam train operations on branch lines which were no longer profitable. Interstate operations have been established between Los Angeles, California, and El Paso, Texas; between San Francisco, California, and Portland, Oregon; between Grants Pass, Oregon, and Eureka, California; between Truckee, California, and Reno, Nevada; and between Phoenix, Arizona, and Lordsburg, New Mexico, over the "Apache Trail."

To provide a more flexible service and to secure greater economy in operation, the Southern Pacific Motor Transport Company, during 1928, acquired control, by stock ownership, of the Oregon Stages, Inc., and the Coast Auto Lines, Inc., and similarly in January, 1929, acquired control of the Pacific Stages, Inc. These three companies operate a total of 75 motor coaches in intrastate service in Oregon, and these operations, together with the operations of the Southern Pacific Motor Transport Company, will provide an adequate and coordinated service with your Company's rail lines serving Western Oregon, resulting in improved service and reduced expenses. With the acquisition of these three companies, the Southern Pacific Motor Transport Company now has a total of 222 motor coaches, trucks, and service cars operating in the States of Oregon, California, Nevada, Arizona, New Mexico and Texas.

#### MOTOR COACH ACTIVITIES OF PACIFIC ELECTRIC RAILWAY COMPANY

The Pacific Electric Railway Company, a wholly owned subsidiary of the Southern Pacific Company, operating 686.56 miles of electric lines in Southern California, is located in one of the most rapidly growing territories of the United States, and while the increase in population in that part of California has been marked, the passenger business of the Pacific Electric Railway Company has not grown in proportion, both the interurban lines and the local street car lines of that Company having been seriously affected by the increasing motor coach and automobile competition. To meet this situation the Pacific Electric Railway Company established motor coach service, and is now operating forty-two motor coaches over ten interurban routes aggregating 143 miles, and seventy-two motor coaches over sixteen routes, giving city service, aggregating 81 miles, or a total of one hundred and fourteen motor coaches operating over twenty-six routes having an aggregate length of 224 miles.

The Western section of Los Angeles is served locally by the Pacific Electric Railway Company and by the Los Angeles Railway, and in order to meet parallel motor coach competition which was threatened, a joint agency, known as the Los Angeles Motor Coach Company, was formed by the Pacific Electric Railway and the Los Angeles Railway. This joint agency, with 132 motor coaches, is now operating, for the equal joint account of the parent companies, four routes giving cross town service between the territory served by the Pacific Electric and that served by the Los Angeles Railway, and two routes from the center of the City through territory served by both lines.

In Southern California, motor truck operation has diverted from the railroads a large amount of the local less-than-carload business, and to meet this competition,

there was incorporated on October 13, 1928, the Pacific Electric Motor Transport Company, all of whose capital stock is owned by the Pacific Electric Railway Company. This Company will begin operations in the Spring of 1929 with an experimental service from store door to store door, the pick-up and delivery service being rendered, as far as possible, by local motor truck companies, under contract and lease arrangements, the railway being used for the line haul service.

#### SUISUN BAY BRIDGE

To replace the train-ferry between Port Costa and Benicia, a distance of about one mile, which constitutes a gap in the heavy traffic, double track, main line between Oakland and Sacramento, and in the main line between Oakland and Portland, authority has been obtained from the War Department and from the Interstate Commerce Commission, to construct a double track railroad bridge across Suisun Bay, about three miles east of the present ferry.

This bridge, which will extend from Suisun Point in the City of Martinez, to Army Point, east of Benicia, will be 5,600 feet long, the main spans will be 531 feet long, and there will be a lift span 327 feet long which will provide 300 feet of horizontal clearance and 135 feet of under-clearance. However, as the minimum clearance under bottom of the steel will be 70 feet at mean high water, which will permit nearly all the water-borne traffic at the bridge to pass under it, it is estimated that it will be necessary to open the lift span, on an average, only about five times during each twenty-four hours, so that the effect of the opening of the lift span upon train operations will be negligible. The estimated cost of the bridge, including the cost of building a second track on the line from Port Costa to Suisun Point in the City of Martinez, is \$12,000,000.

It is estimated that the saving which will result from the discontinuance of this ferry service will exceed the cost of operating the bridge by an amount that will be more than sufficient to pay the carrying charges on the cost of the bridge, including depreciation.

#### ACQUISITION OF FULL CONTROL OF THE NORTHWESTERN PACIFIC RAILROAD COMPANY

Pursuant to authority granted by the Interstate Commerce Commission in its order, dated December 14, 1928, in Finance Docket No. 7102, the Southern Pacific Company, on January 17, 1929, acquired full control of the Northwestern Pacific Railroad Company, by the purchase from the Atchison, Topeka & Santa Fe Railway Company of its one-half of the outstanding capital stock of the said Company, the total amount of such outstanding stock, since the incorporation of the Northwestern Pacific, in January, 1907, having been owned, one-half each, by your Company and the Atchison, Topeka & Santa Fe Railway Company.

The Northwestern Pacific Railroad Company owns a line of road extending from Sausalito and Tiburon, California, in a general northerly direction, to Trinidad, California, which, with several branch lines, makes an aggregate of 514.68 miles of road owned, of which 477.56 miles are operated directly by the Northwestern Pacific, and 37.12 miles of branch lines are leased to lumber companies. This line of railroad is an important direct connection of your Company's Pacific Lines which receive a substantial haul on a large part of the freight traffic originating on and destined to such line. With complete ownership of the line it is expected that substantial economies in operation will be effected by reduction of expenses not possible under dual control.

#### SAN JOSE LINE CHANGE

Because of the exploration of the franchise by virtue of which your Company has operated along 4th Street, in the heart of the City of San Jose, California, it becomes necessary to establish a new route through that City.

This will involve a line change extending from College Park to Lick station, a distance of 5.64 miles, and will result in a route one-quarter of a mile shorter than the present operated line. It will be so located that there will be a minimum of interference to train movements by vehicular traffic at cross streets, the plan contemplating eight grade separations, permitting greater speed of trains with consequent saving in running time.

The estimated cost of the project is \$3,236,848, and it is proposed to undertake the work at once, with the expectation of completing it within two years.

A new passenger station will be built on the line change at a suitable location.

#### SOUTHERN PACIFIC RAILROAD COMPANY OF MEXICO

The operations of the line were interrupted at various times during the year by the firing of bridges and trestles and by tunnel fires set by bandits and Yaqui Indians, eight trestles having an aggregate length of 1,545 feet, and 1,723 feet of timber lining in two tunnels, having been destroyed during the year by such fires. Operations were also interfered with by damages caused by floods in the Presidio, Rosario, and Sonora Rivers. Charges to operating expenses on account of these extraordinary causes, including the charges in connection with replacing the bridge over the Fuerte River (washed out in 1927) with a 700 foot steel bridge and 540 feet of trestle, increased operating expenses by about \$584,000.

The unsettled conditions which existed in 1927, however, were greatly improved during 1928, with resulting benefits to agriculture and industry, which in turn resulted in an increase in the volume of railroad traffic. Operating results for the year 1928, therefore, show a substantial improvement over those of the previous year. Expresses in United States currency, operating revenues for the year amounted to \$6,474,207, an increase of \$672,638, or 11.59 per cent. Operating expenses amounted to \$5,278,023, a decrease of \$812,093, or 13.33 per cent. After deductions for Taxes, Joint Facility Rents, and Uncollectible Railway Revenues, there was a net operating income of \$831,386 compared with an operating loss last year of \$708,324.

At the time of going to press, affairs in Mexico are in a very unsettled condition which, probably, will have a serious effect upon the operations of this line during 1929.

#### SOUTHERN PACIFIC GOLDEN GATE FERRIES, LTD.

On account of the wide distribution and increased use of automobiles, the transportation of automobiles by ferry across San Francisco Bay between San Francisco and other Bay points, has grown rapidly during the past few years. To provide for this traffic, automobile ferries have been operated by your Company, by the Northwestern Pacific Railroad Company, and by the Golden Gate Ferries, Inc., between San Francisco on the one hand, and Oakland, Alameda, Richmond, Berkeley, Sausalito, and Vallejo, California, on the other. The result has been a useful duplication of service without compensating public benefit or adequate return upon the investments of the companies mentioned. To improve the situation and to avoid such costly and unprofitable operations, an agreement has been reached between the Southern Pacific Company, the Northwestern Pacific Railroad Company, and the Golden Gate Ferries, Inc., under the terms of which the three companies will transfer to a new company to be known as the SOUTHERN PACIFIC GOLDEN GATE FERRIES, LTD., the automobile ferry equipment and facilities heretofore operated by the respective companies. Appraisal will be made of the value of the properties, now estimated at \$15,500,000, and securities of the new company will be issued to pay for such properties. Southern Pacific interests will direct operations of the new company through having, with a majority of the stock, five of its nine directors.

It is expected that substantial savings will be made through the elimination of wasteful service, the better employment of the operating equipment, and the operating economies which will be effected as a result of this consolidation.

The plan is subject to the approval of the California Railroad Commission, and it is hoped it will be made operative some time during the year 1929.

## ACQUISITION OF CONTROL OF THE TEXAS MIDLAND RAILROAD

Pursuant to authority granted by the Interstate Commerce Commission in its order, dated February 11, 1928, in Finance Docket No. 6650, the Southern Pacific Company and the Texas and New Orleans Railroad Company (a solely controlled subsidiary of the Southern Pacific Company) acquired control on April 1, 1928, (the former by stock ownership and the latter by lease) of the Texas Midland Railroad, extending from El Paso, Texas, a divisional terminal point of the Dallas Division of your Texas Lines, to Paris, Texas, a distance of 125 miles. This line, which thus becomes a part of the Southern Pacific Lines in Texas and Louisiana, serves an agricultural district which it is expected will give your lines a considerable tonnage of cotton and other valuable traffic.

## FEDERAL VALUATION OF RAILROADS

The joint conference referred to on page 27 of last year's report, between representatives of your Company and the Interstate Commerce Commission's Bureau of Valuation, were commenced in 1928, and resulted in reducing the number of protested items to be disposed of at formal hearings, so that the formal hearings in respect of the tentative valuation of the lines in Texas and Louisiana were completed on July 2, 1928, and of the Pacific Lines on October 26, 1928. The joint conferences resulted in substantial increases in the estimates of reproduction cost which the Bureau of Valuation recommended to the Commission. At the formal hearings, many claims involving principles upon which the Commission had formerly decided adversely to your Company's contentions, were disposed of by making general and specific reservations under which the right was reserved to support such claims by the introduction of evidence and by argument, whenever the Commission makes any change in its decisions relating to these or similar claims; or makes any order changing or modifying its policy or practice in any way relating to such claims; or whenever any decision or order entered in the primary valuation proceedings becomes related to, or is used in any manner in, any other proceedings; or whenever the valuation of the properties of your Companies may be determined as of some subsequent date or dates.

Briefs have been filed by your Companies in respect of the items not disposed of at the joint conferences and formal hearings, and after the Bureau of Valuation has filed its brief, and your Companies have filed their reply briefs, the matter will then be submitted to the Commission for its final decision.

In connection with the matter of bringing to a common date, the value of the properties of all common carriers subject to the provisions of Section 19a of the Interstate Commerce Act, the Commission issued an order, effective July 1, 1928, requiring each carrier to file with the Commission, returns showing all additions and retirements, and the cost thereof, from the several valuation dates down to and including December 31, 1927.

The method which the Commission will use in bringing the valuations of all properties down to a common date has not been disclosed, and it cannot now be determined how long it will take to accomplish this task.

## CHANGE IN ORGANIZATION

On December 13, 1928, the Board announced the following changes in the organization and management of the Company's affairs, effective January 1, 1929:

Mr. Henry W. de Forest, Chairman of the Executive Committee since June 1, 1925, was elected Chairman of the Board, a new position. Mr. de Forest will have the management of the Company's general financial affairs and consolidation matters.

Mr. Hale Holden, for many years President and Chairman of the Executive Committee of the Chicago, Burlington & Quincy Railroad Company, was elected Chairman of the Executive Committee. Mr. Holden will have general control of the Company's business, except the management of its general financial affairs and consolidation matters.

Mr. Wm. Sproule, President since September 25, 1911 (except during the period from July 12, 1918, to December 31, 1919, both inclusive, when he was District Director of the United States Railroad Administration), after more than 41 years of service with the Southern Pacific Lines, retired from active service December 31, 1928, under the pension rules of the Company and in accordance with his expressed wish.

Mr. A. D. McDonald, Vice Chairman of the Executive Committee of this Company, will, in addition to the other duties of that position, have general control of the management of the Southern Pacific Steamship Lines. He will also continue in the office of President of the Texas and New Orleans Railroad

Company (the Southern Pacific Lines in Texas and Louisiana). In these dual capacities, he will have immediate charge, under the direction of the Chairman of the Executive Committee, of the management, operation, and traffic of the Southern Pacific Steamship Lines, and of the railroads and other properties of all Southern Pacific Lines East of El Paso, Texas.

Mr. Paul Shoup, Executive Vice President since June 1, 1925, was elected President to succeed Mr. Sproule. Mr. Shoup will have immediate charge, under the direction of the Chairman of the Executive Committee, of the management, operation, and traffic of the railroads and other properties of the Company West of El Paso, Texas, and Ogden, Utah. The office of Executive Vice President was discontinued.

Mr. Lewis J. Spence, Executive Officer since June 1, 1925, after more than 43 years of continuous service with the Southern Pacific Lines, at his own request, retired from active service on December 31, 1928. The office of Executive Officer was discontinued.

Mr. J. H. Dyer, General Manager of the Pacific Lines, was appointed Vice President in charge of Operations. Mr. Dyer will have immediate charge, under the direction of the President, of the maintenance and operation of the railroads of the Company West of El Paso, Texas, and Ogden, Utah.

Mr. F. L. Burckhalter, First Assistant General Manager of the Pacific Lines, was appointed General Manager to succeed Mr. Dyer, promoted. The position of First Assistant General Manager was discontinued.

The headquarters of Mr. T. O. Edwards, General Auditor in charge of operating accounts, was transferred from San Francisco, California, to New York City.

The title of Mr. C. M. Scott, Assistant Treasurer with headquarters in San Francisco, California, was changed to Local Treasurer.

## GENERAL

The dividends for the year, on the capital stocks of the Southern Pacific Company and its Transportation System Companies held by the public, amounted to \$22,342,884.00, as follows:

Dividends on capital stock of the Southern Pacific Company:	
1 1/2 per cent, paid April 2, 1928.....	\$5,585,713.50
1 1/2 per cent, paid July 2, 1928.....	5,585,713.50
1 1/2 per cent, paid October 1, 1928.....	5,585,713.50
1 1/2 per cent, payable January 2, 1929.....	5,585,713.50
Total Southern Pacific Company.....	\$22,342,854.00
Dividends on stocks of Transportation System Companies held by the public.....	30.00
Total dividend payments for the year.....	\$22,342,884.00
Total taxes for the year, of the Transportation System and of all separately operated Solely Controlled Affiliated Companies, amounted to,	\$24,075,037.99

Under the pension system put into effect January 1, 1903, there were carried on the pension rolls at the end of the year, 1,982 employees. The payments to pensioners for the year amounted to \$1,189,012.27, equivalent to six per cent. per annum on an investment of \$19,816,871.17.

The Board announces with sorrow the death, on January 4, 1929, of Mr. J. Horace Harding, who served your Company as a Director from January 13, 1913, to the time of his death, and also served as a Member of the Executive Committee from and after April 4, 1918; the death on January 29, 1929, of Mr. Ogden Mills, who served your Company as a Director from April 4, 1906, to the time of his death, and also served as a Member of the Executive Committee from and after June 20, 1907; and the death, on March 24, 1929, of Mr. Samuel Bea, who served your Company as a Director from April 9, 1919, to the time of his death.

The Board gratefully acknowledges its appreciation of the loyal and efficient services rendered by officers and employees during the year.

By order of the Board of Directors,

HENRY W. DE FOREST,  
Chairman of the Board.

## Georgia and Florida Railroad Completes Extension.

Greenwood, S. C.—The Georgia and Florida Railroad, H. W. Purvis, president, Augusta, Ga., has completed an extension from Augusta to Greenwood, making this city the northern terminus of the line and Madison, Fla., the southern terminus. A big celebration has been arranged for May 15 at Greenwood, when the first passenger train will be run on the new extension. This additional railroad, it is said, will make Greenwood one of the most important transportation centers between Richmond and Atlanta. The town is also served by nine highways.

## Volume of Softwood Orders Continues to Grow.

Lumber demand, especially in the softwood industry, continued for the week ending March 30 at the high level established during the past month. Reports from 788 mills to the National Lumber Manufacturers Association show a gain in unfilled orders of approximately 17,000,000 feet over the previous week, and accumulated softwood orders reached a new high of 27.8 days average production. New business for the week was 444,428,000 feet, as against 427,589,000 feet for 815 mills a week earlier. Softwood reports account for the increase, 525 mills showing new business as 395,777,000 feet, against 367,767,000 feet for 540 mills the week before. Hard-

wood reports give new business as 48,651,000 feet for 305 units, compared with 59,822,000 feet for 343 units a week earlier. A smaller number of reporting units undoubtedly accounts for this apparent decline. Production and shipments also show increases; shipments being in excess of production, and 20,000,000 feet over last week's. Production stood at 383,731,000 feet, compared with 377,417,000 the week before, and shipments were 424,786,000 feet, as against 404,105,000 feet.

## Detroit Firm Acquires Maryland Airplane Company.

A controlling interest in the Kreider-Reisner Aircraft Co., Hagerstown, Md., has been acquired by the Fairchild Aviation Corp., Detroit, Mich., it is announced, and plans are being made to increase the output of the Hagerstown company from 110 planes annually to 465. A. H. Kreider is president; L. E. Reisner, vice-president, and F. E. Siler, chief engineer and production manager of the Kreider-Reisner organization and it is understood that these officials will remain with the company. The Fairchild corporation, which is controlled by the Aviation Corporation, a newly organized holding and development company, of which Graham B. Grosvenor, New York, is president, manufactures airplanes, aerial cameras, airplane engines and motor boats, in addition to doing an extensive work in aerial surveys.

### Protecting Title Insurance in Texas.

Title insurance companies have been placed under control of the Department of Insurance in Texas, and title insurance on land has become one of the best forms of insurance protection, according to W. C. Morris, vice-president of the Stewart Title Guaranty Company, Houston. Mr. Morris points out that the law is intended for the better security of title policy holders, by rigidly enforcing a high standard for all companies engaged in this business, and by requiring large capital stock and surplus or sinking funds for the protection of losses that occur to policy holders. Among the features which he cites are: Requirement that all title companies must have a uniform policy, and must charge uniform rates for the title insurance; rates and the policy will be prescribed by the Board of Insurance Commissioners; rates must be reasonable to the public and, once fixed, cannot be changed until after a public hearing by the board. Other features contribute to the efficacy of the law.

### "Growing Responsibilities of Business."

Under the general caption, "Growing Responsibilities of Business," the seventeenth annual meeting of the Chamber of Commerce of the United States is announced to be held in Washington, April 29 to May 3, when the members and guests will appraise their common business problems. Twelve roundtable conferences for more intimate discussions in smaller groups also will be held. Among the main topics on the program are: "Marketing Agricultural Products," trade practice features, industrial extension problems, "Government Influence on Transportation," "Government Policy—Raw Materials—Waterpower," "Modern Planning and Financing of Cities," "Mass Merchandising—What Is Its Future?" "Principles of Tariff Legislation," "Business Finance and the Credit Supply," "Life and Property Conservation," "Traffic of the City and Its Trade Area" and "Employer-Employee Relations."

### Government Broadens Market News Service.

Expansion of the agricultural market news services of the Bureau of Agricultural Economics through the establishment of additional field offices in the Pacific Northwest and South, extension of the leased telegraph wire system, and increased activities at existing field offices engaged in the collection and dissemination of farm market news by radio, telegraph, the press and by mail, has been announced by the United States Department of Agriculture. Expansion of the bureau's market news service for the South includes extension of the leased wire system to Nashville, Tenn.; Jackson, Miss., and New Orleans, for the purpose of distributing market reports on fruits and vegetables, dairy and poultry products, grain, hay and feed, and livestock. New offices will be opened in New Orleans for the purpose of collecting and disseminating market reports on fruits and vegetables.

### Foreign Business Keeps Bank Busy.

In recognition of the growth of foreign business at the ports of the South and the necessity for bankers to develop facilities for the proper handling of foreign commerce, the Merchants National Bank of Mobile 10 years ago established a Foreign Department, which now engages the full attention of 10 persons. This department trades actively in foreign exchanges, buys bills of exchange covering shipments of various commodities not only in Mobile, but also in many parts of the South and Middle West. The bank handles transactions direct with point of destination, a very important method in handling documentary export collections, as a means of facilitating the foreign commerce of Mobile and other points in the South.

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